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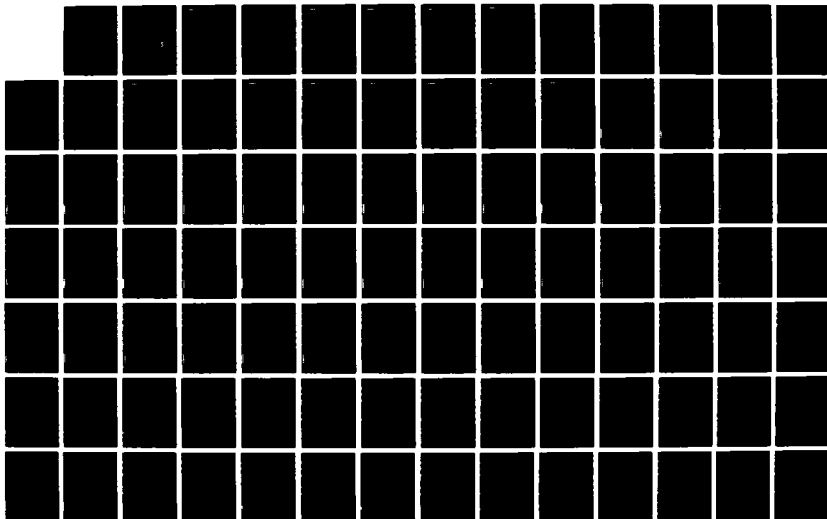
INSTALLATION RESTORATION PROGRAM PHASE 2
CONFIRMATION/QUANTIFICATION STAG. (U) RADIAN CORP
AUSTIN TX DEC 87 F33615-83-D-4001

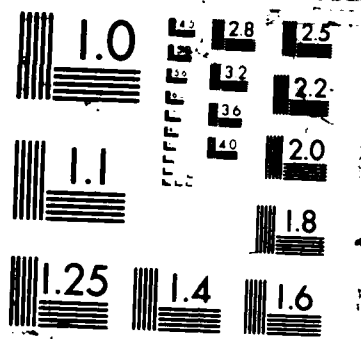
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INSTALLATION RESTORATION PROGRAM
PHASE II - CONFIRMATION/QUANTIFICATION
STAGE 1

FINAL REPORT
FOR
AIR FORCE PLANT 4
FORT WORTH, TEXAS

VOLUME 4. APPENDIX A-1 (CONTINUED)

HEADQUARTERS AERONAUTICAL SYSTEMS DIVISION
FACILITIES MANAGEMENT DIVISION (ASD/PMDA)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433-6503

AND

HEADQUARTERS, AIR FORCE SYSTEMS COMMAND
COMMAND BIOENVIRONMENTAL ENGINEER (AFSC/SGPB)
ANDREWS AIR FORCE BASE, DC 20334-5000

DECEMBER 1987

PREPARED BY
RADIAN CORPORATION
8501 MO-PAC BOULEVARD
POST OFFICE BOX 201088
AUSTIN, TEXAS 78720-1088

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USAF CONTRACT NO. F33615-83-D-4001 DELIVERY ORDER 27
RADIAN CONTRACT NO. 212-027-27

APPROVED FOR PUBLIC RELEASE
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USAF O EHL TECHNICAL PROGRAM MANAGERS
MAJOR GEORGE R. NEW
CAPTAIN ARTHUR S. KAMINSKI

UNITED STATES AIR FORCE
OCCUPATIONAL & ENVIRONMENTAL HEALTH LABORATORY (USAF O EHL)
BROOKS AIR FORCE BASE, TEXAS 78235-5501

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APPENDIX A-1 (Continued)
Groundwater Analytical Data

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TABLE A.1-5. DUPLICATE OF TABLE A.1-1 OF INDEX OF ANALYTICAL
REPORTS, BY WORK ORDER NUMBER

Volume 2	Volume 3	Volume 4
86-01-239	86-02-067	86-02-169
86-01-240	86-02-070	86-02-176
86-01-242	86-02-075	86-02-179
86-02-001	86-02-078	86-02-197
86-02-004	86-02-079	86-02-198
86-02-015	86-02-087	86-03-002
86-02-016	86-02-091	86-03-003
86-02-019	86-02-100	86-03-004
86-02-030	86-02-109	86-03-018
86-02-031	86-02-113	86-03-021
86-02-038	86-02-120	86-04-069
86-02-041	86-02-122	86-04-070
86-02-044	86-02-123	86-04-084
86-02-047	86-02-132	86-04-085
86-02-058	86-02-138	86-04-135
86-02-060	86-02-139	86-04-164
	86-02-152	86-07-086
	86-02-159	86-07-088
		86-07-095
		86-08-034
		86-08-058
		86-08-078
		86-08-092
		86-08-093
		86-08-094
		86-08-095
		86-08-096

→ This report discusses analytical data concerning environmental protection and water quality.

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National Technical Information Service
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Springfield, Virginia 22161

Defense Technical Information Center
Cameron Station
Alexandria, Virginia 22314

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A-1

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TABLE A.1-6. GROUNDWATER AND SURFACE WATER SAMPLE LOG AND CROSS-REFERENCE TABLE

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
HM-2	860184	2/20/86	Hydrogenated vols. (601)	86-02-138			
			Aromatic vols. (602)	86-02-138			
			Pesticides & PCBs (608)	86-02-132	2/24/86	3/6/86	
			B/N & Acid Semi-vols. (625)	86-02-132	2/24/86	3/6/86	
HM-5	860152	2/12/86	Metals	86-02-139			
			Hydrogenated vols. (601)	86-02-075			
			Aromatic vols. (602)	86-02-075			
			Pesticides & PCBs (608)	86-02-078	2/13/86	2/27/86	
HM-7	860162	2/13/86	B/N & Acid Semi-vols. (625)	86-02-078	2/13/86	2/27/86	
			Metals	86-02-079			
			Hydrogenated vols. (601)	86-02-087			
			Aromatic vols. (602)	86-02-087			
HM-8	860161	2/13/86	Pesticides & PCBs (608)	86-02-091	2/17/86	3/5/86	
			B/N & Acid Semi-vols. (625)	86-02-091	2/17/86	3/5/86	
			Metals	86-02-087			
			Hydrocarbon Fuels	86-02-087			
HM-9	860206	2/27/86	Hydrogenated vols. (601)	86-02-197			
			Aromatic vols. (602)	86-02-197			
			Pesticides & PCBs (608)	86-02-198	3/3/86	3/13/86	
			B/N & Acid Semi-vols. (625)	86-02-198	3/3/86	3/13/86	
HM-10	860137	2/7/86	Metals	86-02-197			
			Halogenated vols. (601)	86-02-047			
			Aromatic vols. (602)	86-02-047			
			Pesticides & PCBs (608)	86-02-044	2/10/86	2/25/86	
HM-11	860146	2/10/86	B/N & Acid Semi-vols. (625)	86-02-044	2/10/86	2/25/86	
			Metals	86-02-047			
			Hydrogenated vols. (601)	86-02-060			
			Aromatic vols. (602)	86-02-060			
HM-12	860165	2/14/86	Pesticides & PCBs (608)	86-02-058	2/12/86	2/26/86	
			B/N & Acid Semi-vols. (625)	86-02-058	2/12/86	2/26/86	
			Metals	86-02-060			
			Hydrogenated vols. (601)	86-02-100			
HM-13	860178	2/19/86	Aromatic vols. (602)	86-02-100			
			Pesticides & PCBs (608)	86-02-109	2/18/86	3/5/86	
			B/N & Acid Semi-vols. (625)	86-02-109	2/18/86	3/5/86	
			Metals	86-02-100			
HM-14	860177	2/19/86	Hydrogenated vols. (601)	86-02-120			
			Aromatic vols. (602)	86-02-120			
			Pesticides & PCBs (608)	86-02-122	2/20/86	3/5/86	
			B/N & Acid Semi-vols. (625)	86-02-122	2/20/86	3/5/86	
HM-15	860193	2/25/86	Metals	86-02-120			
			Hydrocarbon Fuels	86-02-120			
			Hydrogenated vols. (601)	86-02-159			
			Aromatic vols. (602)	86-02-159			

(continued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work		Date Extracted	Date Analyzed	Comments
				Order Number				
HM-16	860147	2/11/86	Hydrogenated vols. (601)	86-02-067				
			Aromatic vols. (602)	86-02-067				
			Pesticides & PCBs (608)	86-02-070	2/12/86	2/27/86		
			B/N & Acid Semi-vols. (625)	86-02-070	2/12/86	2/27/86		
HM-17	860149	2/11/86	Metals	86-02-067				
			Hydrogenated vols. (601)	86-02-067				
			Aromatic vols. (602)	86-02-067				
			Pesticides & PCBs (608)	86-02-070	2/12/86	2/27/86		
HM-18	860150	2/11/86	B/N & Acid Semi-vols. (625)	86-02-070	2/12/86	2/27/86		
			Metals	86-02-067				
			Hydrogenated vols. (601)	86-02-067				
			Aromatic vols. (602)	86-02-067				
HM-19	860217	3/1/86	Pesticides & PCBs (608)	86-02-070	2/12/86	2/27/86		
			B/N & Acid Semi-vols. (625)	86-02-070	2/12/86	2/27/86		
			Metals	86-02-067				
			Hydrogenated vols. (601)	86-03-003				
HM-20	860109	1/31/86	Aromatic vols. (602)	86-03-003				
			Oil and Grease	86-03-004				
			Hydrocarbon Fuels	86-03-004				
			Halogenated vols. (601)	86-02-001				
HM-21	860138	2/7/86	Aromatic vols. (602)	86-02-001				
			Pesticides & PCBs (608)	86-02-004	2/3/86	2/12/86		
			B/N & Acid Semi-vols. (625)	86-02-004	2/3/86	2/12/86		
			Metals	86-02-001				
HM-22	860181	2/20/86	Halogenated vols. (601)	86-02-047				
			Aromatic vols. (602)	86-02-047				
			Pesticides & PCBs (608)	86-02-044	2/10/86	2/25/86		
			B/N & Acid Semi-vols. (625)	86-02-044	2/10/86	2/25/86		
HM-23	860174	2/18/86	Metals	86-02-047				
			Hydrogenated vols. (601)	86-02-138				
			Aromatic vols. (602)	86-02-138				
			Pesticides & PCBs (608)	86-02-132	2/24/86	3/6/86		
HM-24	860176	2/19/86	B/N & Acid Semi-vols. (625)	86-02-132	2/24/86	2/6/86		
			Metals	86-02-132				
			Hydrogenated vols. (601)	86-02-113				
			Oil and Grease	86-02-113				
HM-25	860148	2/11/86	Hydrocarbon Fuels	86-02-113				
			Hydrogenated vols. (601)	86-02-120				
			Aromatic vols. (602)	86-02-120				
			Pesticides & PCBs (608)	86-02-122	2/20/86	3/6/86		
HM-26	860148	2/11/86	B/N & Acid Semi-vols. (625)	86-02-122	2/20/86	3/6/86		
			Metals	86-02-120				
			Hydrogenated vols. (601)	86-02-067				
			Aromatic vols. (602)	86-02-067				
HM-27	860148	2/11/86	Pesticides & PCBs (608)	86-02-070	2/12/86	2/27/86		
			B/N & Acid Semi-vols. (625)	86-02-070	2/12/86	2/27/86		
			Metals	86-02-067				
			Hydrogenated vols. (601)	86-02-067				

(continued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
HM-26	860112	1/31/86	Halogenated vols. (601)	86-02-001			
			Aromatic vols. (602)	86-02-001			
			Pesticides & PCBs (608)	86-02-004	2/3/86	2/11/86	Duplicate analysis
			B/N & Acid Semi-vols. (625)	86-02-016	2/4/86	2/14/86	Duplicate analysis
			B/N & Acid Semi-vols. (625)	86-02-004	2/3/86	2/11/86	Duplicate analysis
HM-27	860113	1/31/86	Metals	86-02-001	2/4/86	2/14/86	
			Halogenated vols. (601)	86-02-001			
			Aromatic vols. (602)	86-02-001			
			Pesticides & PCBs (608)	86-02-016	2/4/86	2/14/86	
			B/N & Acid Semi-vols. (625)	86-02-016			
HM-28	860132	2/6/86	Metals	86-02-001			
			Halogenated vols. (601)	86-02-041			
			Aromatic vols. (602)	86-02-041			
			Pesticides & PCBs (608)	86-02-038	2/10/86	2/24/86	
			B/N & Acid Semi-vols. (625)	86-02-038	2/10/86	2/24/86	
HM-28	860133	2/6/86	Metals	86-02-041	2/10/86	2/25/86	Duplicate of 860132
			Pesticides and PCBs (608)	86-02-038			
			B/N & Acid Semi-vol. (625)	86-02-038			
			Hydrogenated vols. (601)	86-02-138			
			Aromatic vols. (602)	86-02-138			
HM-29	860189	2/21/86	Pesticides & PCBs (608)	86-02-152	2/25/86	3/11/86	
			B/N & Acid Semi-vols. (625)	86-02-152	2/25/86	3/11/86	
			Metals	86-02-139			
			Oil and Grease	86-02-139			
			Hydrocarbon Fuels	86-02-139			
HM-30	860163	2/13/86	Hydrogenated vols. (601)	86-02-087			
			Aromatic vols. (602)	86-02-087			
			Pesticides & PCBs (608)	86-02-091	2/17/86	3/5/86	
			B/N & Acid Semi-vols. (625)	86-02-091	2/17/86	3/5/86	
			Metals	86-02-087			
HM-31	860166	2/14/86	Hydrogenated vols. (601)	86-02-100			
			Aromatic vols. (602)	86-02-100			
			Pesticides & PCBs (608)	86-02-109	2/18/86	3/5/86	
			B/N & Acid Semi-vols. (625)	86-02-109	2/18/86	3/5/86	
			Metals	86-02-100			
HM-32	860164	2/14/86	Oil and Grease	86-02-100			
			Hydrocarbon Fuels	86-02-100			
			Hydrogenated vols. (601)	86-02-100			
			Aromatic vols. (602)	86-02-100			
			Pesticides & PCBs (608)	86-02-109			
HM-33	860207	2/28/86	B/N & Acid Semi-vols. (625)	86-02-109	2/18/86	3/5/86	
			Metals	86-02-100	2/18/86	3/5/86	
			Hydrogenated vols. (601)	86-03-002			
			Aromatic vols. (602)	86-03-002			
			Oil and Grease	86-03-004			
			Hydrocarbon Fuels	86-03-004			

(continued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
HM-33	860208	2/28/86	Hydrogenated vols. (601) Aromatic vols. (602) Oil and Grease Hydrocarbon Fuels	86-03-002 86-03-002 86-03-004 86-03-004			Duplicate of 860207
HM-34	860204	2/27/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-197 86-02-197 86-02-198 86-02-198 86-02-197	3/3/86 3/3/86	3/13/86 3/13/86	
HM-34	860205	2/27/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-197 86-02-197 86-02-198 86-02-198 86-02-197	3/3/86 3/3/86	3/13/86 3/13/86	Duplicate of 860204
HM-35	860203	2/27/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-197 86-02-197 86-02-198 86-02-198 86-02-197	3/3/86 3/3/86	3/13/86 3/13/86	
HM-36	860202	2/27/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-197 86-02-197 86-02-198 86-02-198 86-02-197	3/3/86 3/3/86	3/13/86 3/13/86	
HM-37	860114	1/31/86	Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-001 86-02-001 86-02-001 86-02-004 86-02-001	2/3/86 2/3/86	2/12/86 2/12/86	
HM-38	860188	2/21/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-138 86-02-138 86-02-152 86-02-152 86-02-197	2/25/86 2/25/86	3/10/86 3/10/86	
HM-39	860201	2/27/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-197 86-02-197 86-02-198 86-02-198 86-02-197	3/3/86 3/3/86	3/13/86 3/13/86	
HM-40	860194	2/25/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-159 86-02-159 86-02-169 86-02-169 86-02-159	2/27/86 2/27/86	3/12/86 3/11/86	
HM-41	860192	2/25/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-159 86-02-159 86-02-169 86-02-169 86-02-159	2/27/86 2/27/86	3/12/86 3/12/86	

(cont inued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
HM-42	860183	2/20/86	Hydrogenated vols. (601)	86-02-138			
			Aromatic vols. (602)	86-02-138			
			Pesticides & PCBs (608)	86-02-132	2/24/86	3/6/86	
			B/N & Acid Semi-vols. (625)	86-02-132	2/24/86	3/6/86	
HM-43	860182	2/20/86	Metals	86-02-139			
			Hydrogenated vols. (601)	86-02-138			
			Aromatic vols. (602)	86-02-138			
			Pesticides & PCBs (608)	86-02-132	2/24/86	3/6/86	
HM-44	860190	2/25/86	B/N & Acid Semi-vols. (625)	86-02-132	2/24/86	3/6/86	
			Metals	86-02-139			
			Hydrogenated vols. (601)	86-02-159			
			Aromatic vols. (602)	86-02-159			
HM-45	860191	2/25/86	Pesticides & PCBs (608)	86-02-169	2/27/86	3/12/86	
			B/N & Acid Semi-vols. (625)	86-02-169	2/20/86	3/12/86	
			Metals	86-02-159			
			Hydrogenated vols. (601)	86-02-159			
HM-46	860185	2/20/86	Aromatic vols. (602)	86-02-159			
			Pesticides & PCBs (608)	86-02-169	2/27/86	3/12/86	
			B/N & Acid Semi-vols. (625)	86-02-169	2/27/86	3/12/86	
			Metals	86-02-159			
HM-47	860130	2/6/86	Hydrogenated vols. (601)	86-02-138			
			Aromatic vols. (602)	86-02-138			
			Pesticides & PCBs (608)	86-02-132	2/24/86	3/6/86	
			B/N & Acid Semi-vols. (625)	86-02-132	2/24/86	3/6/86	
HM-47	860130	2/6/86	Metals	86-02-139			
			Halogenated vols. (601)	86-02-041			
			Aromatic vols. (602)	86-02-041			
			Metals	86-02-041			
HM-47	860131	2/6/86	Oil and Grease	86-02-041			
			Hydrocarbon Fuels	86-02-041			
			Halogenated vols. (601)	86-02-041			
			Aromatic vols. (602)	86-02-041			
HM-48	860167	2/14/86	Metals	86-02-041			
			Oil and Grease	86-02-041			
			Hydrocarbon Fuels	86-02-041			
			Hydrogenated vols. (601)	86-02-100			
HM-49	860156	2/12/86	Aromatic vols. (602)	86-02-100			
			Chromium	86-02-100			
			Hydrogenated vols. (601)	86-02-075			
			Aromatic vols. (602)	86-02-075			
HM-50	860157	2/12/86	Oil and Grease	86-02-079			
			Hydrocarbon Fuels	86-02-079			
			Hydrogenated vols. (601)	86-02-075			
			Aromatic vols. (602)	86-02-075			
HM-50	860157	2/12/86	Oil and Grease	86-02-079			
			Hydrocarbon Fuels	86-02-079			
			Hydrogenated vols. (601)	86-02-075			
			Aromatic vols. (602)	86-02-075			

Duplicate of 860130

(continued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
HM-51	860151	2/11/86	Hydrogenated vols. (601)	86-02-067			
			Aromatic vols. (602)	86-02-067			
			Oil and Grease	86-02-067			
			Hydrocarbon Fuels	86-02-067			
HM-52	860141	2/10/86	Halogenated vols. (601)	86-02-060			
			Aromatic vols. (602)	86-02-060			
			Pesticides & PCBs (608)	86-02-058	2/12/86	2/26/86	
			B/N & Acid Semi-vols. (625)	86-02-058	2/12/86	2/26/86	
HM-52	860142	2/10/86	Metals	86-02-060			
			Oil and Grease	86-02-060			
			Hydrocarbon Fuels	86-02-060			
			Halogenated vols. (601)	86-02-060			
HM-53	860145	2/10/86	Aromatic vols. (602)	86-02-060			
			Pesticides & PCBs (608)	86-02-058	2/12/86	2/26/86	
			B/N & Acid Semi-vols. (625)	86-02-058	2/12/86	2/26/86	
			Metals	86-02-060			
HM-54	860143	2/10/86	Oil and Grease	86-02-060			
			Hydrocarbon Fuels	86-02-060			
			Hydrocarbon Fuels	86-02-060			
			Halogenated vols. (601)	86-02-060			
HM-55	860119	2/4/86	Aromatic vols. (602)	86-02-060			
			Pesticides & PCBs (608)	86-02-058	2/12/86	2/26/86	
			B/N & Acid Semi-vols. (625)	86-02-058	2/12/86	2/26/86	
			Metals	86-02-060			
HM-56	860186	2/21/86	Oil and Grease	86-02-060			
			Hydrocarbon Fuels	86-02-060			
			Pesticides and PCBs (608)	86-02-058	2/12/86	2/26/86	
			B/N & Acid Semi-vols. (625)	86-02-058	2/12/86	2/26/86	
HM-57	860200	2/26/86	Hydrocarbon Fuels	86-02-123			
			Oil and Grease	86-02-019			
			Hydrogenated vols. (601)	86-02-138			
			Aromatic vols. (602)	86-02-138			
HM-58	860195	2/26/86	Pesticides & PCBs (608)	86-02-152	2/25/86	3/10/86	
			B/N & Acid Semi-vols. (625)	86-02-152	2/25/86	3/10/86	
			Metals	86-02-139			
			Hydrocarbon Fuels	86-02-139			
HM-58	860200	2/26/86	Purgeables (624)	86-02-152			
			Hydrogenated vols. (601)	86-02-176			
			Aromatic vols. (602)	86-02-176			
			Pesticides & PCBs (608)	86-02-179	2/28/86	3/12/86	
HM-58	860195	2/26/86	B/N & Acid Semi-vols. (625)	86-02-179	2/28/86	3/12/86	
			Metals	86-02-176			
			Oil and Grease	86-02-176			
			Hydrocarbon Fuels	86-02-176			
HM-58	860195	2/26/86	Hydrogenated vols. (601)	86-02-176			
			Aromatic vols. (602)	86-02-176			
			Pesticides & PCBs (608)	86-02-179	2/28/86	3/12/86	
			B/N & Acid Semi-vols. (625)	86-02-179	2/28/86	3/12/86	
HM-58	860195	2/26/86	Metals	86-02-176			
			Oil and Grease	86-02-176			
			Hydrocarbon Fuels	86-02-176			
			Hydrocarbon Fuels	86-02-176			

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(continued)

TABLE 4.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
HM-58	860196	2/26/86	Hydrogenated vols. (601)	86-02-176			Duplicate of 860195
			Aromatic vols. (602)	86-02-176			
			Pesticides & PCBs (608)	86-02-179			
			B/N & Acid Semi-vols. (625)	86-02-179			
			Metals	86-02-176			
			Oil and Grease	86-02-176			
			Hydrocarbon Fuels	86-02-176			
			Halogenated vols. (601)	86-02-015			
			Aromatic vols. (602)	86-02-015			
			Pesticides & PCBs (608)	86-02-016	2/14/86		
B/N & Acid Semi-vols. (625)	86-02-016	2/14/86					
HM-59	860113	2/3/86	Metals	86-02-015			
			Oil and Grease	86-02-015			
			Hydrocarbon Fuels	86-02-015			
			Halogenated vols. (601)	86-02-041			
			Aromatic vols. (602)	86-02-041			
			Pesticides & PCBs (608)	86-02-038	2/25/86		
			B/N & Acid Semi-vols. (625)	86-02-038	2/25/86		
			Metals	86-02-041			
			Hydrogenated vols. (601)	86-02-176			
			Aromatic vols. (602)	86-02-176			
HM-60	860134	2/6/86	Metals	86-02-176			
			Oil and Grease	86-02-176			
			Hydrocarbon Fuels	86-02-176			
			Hydrogenated vols. (601)	86-03-003			
			Aromatic vols. (602)	86-03-003			
			Pesticides & PCBs (608)	86-03-021	3/5/86		
			B/N & Acid Semi-vols. (625)	86-03-021	3/5/86		
			Metals	86-03-004			
			Halogenated vols. (601)	86-02-047			
			Aromatic vols. (602)	86-02-047			
HM-61	860198	2/26/86	Pesticides & PCBs (608)	86-02-044	2/10/86		
			B/N & Acid Semi-vols. (625)	86-02-044	2/10/86		
			Metals	86-02-047			
			Hydrogenated vols. (601)	86-02-176			
			Aromatic vols. (602)	86-02-176			
			Pesticides & PCBs (608)	86-02-176			
			B/N & Acid Semi-vols. (625)	86-02-176			
			Metals	86-02-176			
			Oil and Grease	86-02-176			
			Hydrocarbon Fuels	86-02-176			
HM-62	860216	3/1/86	Hydrogenated vols. (601)	86-02-176			
			Aromatic vols. (602)	86-03-003			
			Pesticides & PCBs (608)	86-03-021	3/24/86		
			B/N & Acid Semi-vols. (625)	86-03-021	3/24/86		
			Metals	86-03-004			
			Halogenated vols. (601)	86-02-047			
			Aromatic vols. (602)	86-02-047			
			Pesticides & PCBs (608)	86-02-044	2/25/86		
			B/N & Acid Semi-vols. (625)	86-02-044	2/25/86		
			Metals	86-02-047			
HM-63	860138	2/7/86	Hydrogenated vols. (601)	86-02-176			
			Aromatic vols. (602)	86-02-176			
			Pesticides & PCBs (608)	86-02-176			
			B/N & Acid Semi-vols. (625)	86-02-179	2/28/86		
			Metals	86-02-179	2/28/86		
			Oil and Grease	86-02-176			
			Hydrocarbon Fuels	86-02-176			
			Halogenated vols. (601)	86-02-075			
			Aromatic vols. (602)	86-02-075			
			Pesticides & PCBs (608)	86-02-079			
HM-64	860197	2/26/86	B/N & Acid Semi-vols. (625)	86-02-079			
			Metals	86-02-176			
			Oil and Grease	86-02-176			
			Hydrocarbon Fuels	86-02-176			
			Halogenated vols. (601)	86-02-176			
			Aromatic vols. (602)	86-02-176			
			Pesticides & PCBs (608)	86-02-176			
			B/N & Acid Semi-vols. (625)	86-02-179	3/12/86		
			Metals	86-02-179	3/12/86		
			Oil and Grease	86-02-176			
HM-65	860158	2/12/86	Hydrogenated vols. (601)	86-02-176			
			Aromatic vols. (602)	86-02-176			
			Pesticides & PCBs (608)	86-02-176			
			B/N & Acid Semi-vols. (625)	86-02-179			
			Metals	86-02-179			
			Oil and Grease	86-02-176			
			Hydrocarbon Fuels	86-02-176			
			Halogenated vols. (601)	86-02-176			
			Aromatic vols. (602)	86-02-176			
			Pesticides & PCBs (608)	86-02-176			

(continued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analytes Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
HM-66	860159	2/13/86	Hydrogenated vols. (601)	86-02-087			
			Aromatic vols. (602)	86-02-087			
			Oil and Grease	86-02-087			
HM-68	860209	2/28/86	Hydrocarbon Fuels	86-03-002			
			Hydrogenated vols. (601)	86-03-002			
			Aromatic vols. (602)	86-03-018	3/6/86	3/24/86	
			Pesticides & PCBs (608)	86-03-018	3/6/86	3/24/86	
			B/N & Acid Semi-vols. (625)	86-03-004			
			Metals	86-03-004			
HM-69	860187	2/21/86	Oil and Grease	86-03-004			
			Hydrocarbon Fuels	86-03-004			
			Hydrogenated vols. (601)	86-02-138			
			Aromatic vols. (602)	86-02-138			
			Metals	86-02-139			
			Oil and Grease	86-02-139			
HM-70	860179	2/19/86	Hydrocarbon Fuels	86-02-139			
			Hydrogenated vols. (601)	86-02-120			
			Aromatic vols. (602)	86-02-120			
			Metals	86-02-120			
			Oil and Grease	86-02-120			
			Hydrocarbon Fuels	86-02-120			
HM-70	860180	2/19/86	Purgeables (624)	86-02-152			
			Hydrogenated vols. (601)	86-02-120			
			Aromatic vols. (602)	86-02-120			
			Metals	86-02-120			
			Oil and Grease	86-02-120			
			Hydrocarbon Fuels	86-02-120			
HM-71	860116	2/3/86	Halogenated vols. (601)	86-02-015			
			Aromatic vols. (602)	86-02-015			
			Pesticides & PCBs (608)	86-02-016	2/4/86	2/14/86	
			B/N & Acid Semi-vols. (625)	86-02-015	2/4/86	2/14/86	
			Metals	86-02-015			
			Oil and Grease	86-02-015			
HM-72	860168	2/14/86	Hydrocarbon Fuels	86-02-100			
			Oil and Grease	86-02-100			
			Xylene	86-02-100			
HM-73	860199	2/26/86	Methyl ethyl ketone	9/8/86 memo			
			Oil and Grease	86-02-176			
			Xylene	86-02-176			
HM-74	860129	2/5/86	Methyl ethyl ketone	9/8/86 memo			
			Oil and Grease	86-02-031			
			Xylene	86-02-031			
HM-75	860173	2/18/86	Methyl ethyl ketone	9/8/86 memo			
			Oil and Grease	86-02-113			
			Xylene	86-02-113			
			Methyl ethyl ketone	9/8/86 memo			

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(continued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
HM-76	860160	2/13/86	Hydrogenated vols. (601) Aromatic vols. (602) Oil and Grease	86-02-087 86-02-087 86-02-087			
HM-77	860135	2/6/86	Hydrocarbon Fuels Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-041 86-02-041 86-02-038 86-02-038 86-02-041	2/10/86 2/10/86	2/25/86 2/25/86	
HM-78	860127	2/5/86	Oil and Grease Hydrocarbon Fuels Halogenated vols. (601) Aromatic vols. (602)	86-02-100 86-02-100 86-02-031 86-02-031			
HM-79	860117	2/3/86	Hydrocarbon Fuels Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-031 86-02-015 86-02-015 86-02-016 86-02-015	2/4/86 2/4/86	2/14/86 2/14/86	
HM-80	860128	2/5/86	Oil and Grease Hydrocarbon Fuels Halogenated vols. (601) Aromatic vols. (602)	86-02-015 86-02-015 86-02-031 86-02-031			
HM-81	860140	2/7/86	Hydrocarbon Fuels Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-047 86-02-047 86-02-044 86-02-044 86-02-047	2/10/86 2/10/86	2/25/86 2/25/86	
HM-82	860121	2/4/86	Oil and Grease Hydrocarbon Fuels Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-047 86-02-047 86-02-019 86-02-019 86-02-030 86-02-030			
HM-83	860258	8/21/86	Oil and Grease Hydrocarbon Fuels Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-019 86-02-019 86-08-093 86-08-093 86-08-034 86-08-034	2/6/86 2/6/86	2/16/86 2/16/86	
			Hydrocarbon Fuels Alpha Beta Gamma	86-08-095 86-08-095 86-08-096 86-08-096			

(continued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
HM-84	860261	8/21/86	Hydrogenated vols. (601)	86-08-093			
			Aromatic vols. (602)	86-08-093			
			Pesticides & PCBs (608)	86-08-034			
			B/N & Acid Semi-vols. (625)	86-08-034			
			Metals	86-08-095			
			Oil and Grease	86-08-095			
			Hydrocarbon Fuels	86-08-095			
			Alpha	86-08-096			
			Beta	86-08-096			
			Gamma	86-08-096			
			Hydrogenated vols. (601)	86-08-093			
			Aromatic vols. (602)	86-08-093			
			Pesticides & PCBs (608)	86-08-034			
			B/N & Acid Semi-vols. (625)	86-08-034			
HM-85	860259	8/21/86	Metals	86-08-095			
			Oil and Grease	86-08-095			
			Hydrocarbon Fuels	86-08-095			
			Alpha	86-08-096			
			Beta	86-08-096			
			Gamma	86-08-096			
			Pesticides & PCBs (608)	86-08-034			
			B/N & Acid Semi-vols. (625)	86-08-034			
			Metals	86-08-095			
			Alpha	86-08-096			
			Beta	86-08-096			
			Gamma	86-08-096			
			Pesticides & PCBs (608)	86-08-034			
			B/N & Acid Semi-vols. (625)	86-08-034			
HM-100 HM-101	860226 860228	4/11/86 4/18/86	Hydrocarbon Fuels	86-04-084			
			Hydrogenated vols. (601)	86-04-164			
HM-102	860220	4/9/86	Aromatic vols. (602)	86-04-164			
			Pesticides & PCBs (608)	86-04-135			
			B/N & Acid Semi-vols. (625)	86-04-135			
			Metals	86-04-164			
			Hydrogenated vols. (601)	86-04-069			
			Aromatic vols. (602)	86-04-069			
			Oil and Grease	86-04-069			
			Hydrocarbon Fuels	86-04-069			
			Hydrogenated vols. (601)	86-04-084			
			Aromatic vols. (602)	86-04-084			
			Chromium	86-04-084			
					4/23/86	4/28/86	
					4/23/86	4/28/86	
HM-103	860224	4/10/86	Hydrocarbon Fuels	86-04-069			
			Hydrogenated vols. (601)	86-04-084			

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(continued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
HM-104	860222	4/10/86	Hydrogenated vols. (601)	86-04-084			
			Aromatic vols. (602)	86-04-084			
			Metals	86-04-084			
			Oil and Grease	86-04-084			
HM-105	860230	8/19/86	Hydrocarbon Fuels	86-04-084			
			Oil and Grease	86-08-078			
HM-107	860229	4/19/86	Hydrocarbon Fuels	86-08-078			
			Oil and Grease	86-08-078			
HM-108	860256	8/20/86	Hydrocarbon Fuels	86-08-078			
			Oil and Grease	86-08-094			
P-1	860126	2/6/86	Hydrocarbon Fuels	86-08-094			
			Halogenated vols. (601)	86-02-041			
			Aromatic vols. (602)	86-02-041			
			Pesticides & PCBs (608)	86-02-038			
P-2	860175	2/19/86	B/N & Acid Semi-vols. (625)	86-02-038	2/10/86	2/24/86	
			Metals	86-02-041	2/10/86	2/24/86	
			Hydrogenated vols. (601)	86-02-120			
			Aromatic vols. (602)	86-02-120			
P-3	860123	2/4/86	Pesticides & PCBs (608)	86-02-122	2/20/86	3/6/86	
			B/N & Acid Semi-vols. (625)	86-02-122	2/20/86	3/6/86	
			Metals	86-02-120			
			Halogenated vols. (601)	86-02-019			
P-4	860108	1/30/86	Aromatic vols. (602)	86-02-019			
			Pesticides & PCBs (608)	86-02-030	2/6/86	2/16/86	
			B/N & Acid Semi-vols. (625)	86-02-030	2/6/86	2/16/86	
			Oil and Grease	86-02-019			
P-5u	860111	1/31/86	Hydrocarbon Fuels	86-02-019			
			Halogenated vols. (601)	86-01-239			
			Aromatic vols. (602)	86-01-239	1/31/86	2/11/86	
			Pesticides & PCBs (608)	86-01-242	1/31/86	2/11/86	
P-5m	860110	1/31/86	B/N & Acid Semi-vols. (625)	86-01-242			
			Halogenated vols. (601)	86-02-001			
			Aromatic vols. (602)	86-02-001			
			Pesticides & PCBs (608)	86-02-004	2/3/86	2/11/86	
P6u	860122	2/5/86	B/N & Acid Semi-vols. (625)	86-02-004	2/3/86	2/11/86	
			Metals	86-02-001			
			Oil and Grease	86-02-001			
			Hydrocarbon Fuels	86-02-001			
P6u	860122	2/5/86	Halogenated vols. (601)	86-02-001			
			Aromatic vols. (602)	86-02-001			
			Pesticides & PCBs (608)	86-02-004	2/3/86	2/11/86	
			B/N & Acid Semi-vols. (625)	86-02-004	2/3/86	2/11/86	

(continued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
P-6m	860118	2/4/86	Hydrocarbon Fuels	86-02-123			
			Oil and Grease	86-02-019			
P-7u	860104	1/30/86	Halogenated vols. (601)	86-01-239			
			Aromatic vols. (602)	86-01-239			
			Pesticides & PCBs (608)	86-01-242	1/31/86	2/11/86	
			B/N & Acid Semi-vols. (625)	86-01-242	1/31/86	2/11/86	
			Metals	86-01-240			
P-7m	860103	1/30/86	Halogenated vols. (601)	86-01-239			
			Aromatic vols. (602)	86-01-239			
			Pesticides & PCBs (608)	86-01-242	1/31/86	2/7/86	
			B/N & Acid Semi-vols. (625)	86-01-242	1/31/86	2/7/86	
			Metals	86-01-240			
P-8u	860136	2/7/86	Halogenated vols. (601)	86-02-047			
			Aromatic vols. (602)	86-02-047			
			Pesticides & PCBs (608)	86-02-044	2/10/86	2/25/86	
			B/N & Acid Semi-vols. (625)	86-02-044	2/10/86	2/24/86	
			Metals	86-02-047			
			Oil and Grease	86-02-047			
P-8m	860120	2/4/86	Hydrocarbon Fuels	86-02-047			
			Halogenated vols. (601)	86-02-019			
			Aromatic vols. (602)	86-02-019			
			Pesticides & PCBs (608)	86-02-030	2/6/86	2/16/86	
			B/N & Acid Semi-vols. (625)	86-02-030	2/6/86	2/16/86	
			Metals	86-02-019			
			Oil and Grease	86-02-019			
P-9u	860125	2/5/86	Hydrocarbon Fuels	86-02-019			
			Halogenated vols. (601)	86-02-031			
			Aromatic vols. (602)	86-02-031			
			Pesticides & PCBs (608)	86-02-030	2/6/86	2/16/86	
			B/N & Acid Semi-vols. (625)	86-02-030	2/6/86	2/16/86	
			Metals	86-02-031			
			Oil and Grease	86-02-031			
P-9m	860124	2/5/86	Hydrocarbon Fuels	86-02-031			
			Halogenated vols. (601)	86-02-031			
			Aromatic vols. (602)	86-02-031			
			Pesticides & PCBs (608)	86-02-030	2/6/86	2/16/86	
			B/N & Acid Semi-vols. (625)	86-02-030	2/6/86	2/21/86	
			Metals	86-02-031			
			Oil and Grease	86-02-031			
P-10u	860169	2/14/86	Hydrocarbon Fuels	86-02-031			
			Halogenated vols. (601)	86-02-113			
			Aromatic vols. (602)	86-02-113			
			Pesticides & PCBs (608)	86-02-116	2/24/86	3/6/86	
			B/N & Acid Semi-vols. (625)	86-02-116	2/24/86	3/6/86	
			Metals	86-02-113			
			Oil and Grease	86-02-113			
			Hydrocarbon Fuels	86-02-113			

(Continued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
P-10u	860172	2/18/86	Hydrogenated vols. (601)	86-02-113			Duplicate of 860169
			Aromatic vols. (602)	86-02-113			
			Pesticides & PCBs (608)	86-02-116	2/20/86	3/7/86	
			B/N & Acid Semi-vols. (625)	86-02-116	2/20/86	3/7/86	
			Metals	86-02-113			
P-10m	860170	2/18/86	Oil and Grease	86-02-113			
			Hydrocarbon Fuels	86-02-113			
			Hydrogenated vols. (601)	86-02-113			
			Aromatic vols. (602)	86-02-113			
			Pesticides & PCBs (608)	86-02-116	2/24/86	3/4/86	
P-10m	860171	2/18/86	B/N & Acid Semi-vols. (625)	86-02-116	2/24/86	3/6/86	Duplicate of 860170
			Metals	86-02-113			
			Oil and Grease	86-02-113			
			Hydrocarbon Fuels	86-02-113			
			Hydrogenated vols. (601)	86-02-113			
P-11u	860210	2/28/86	Aromatic vols. (602)	86-03-002			
			Pesticides & PCBs (608)	86-03-018	3/6/86	3/24/86	
			B/N & Acid Semi-vols. (625)	86-03-018	3/6/86	3/24/86	
			Metals	86-03-004			
			Oil and Grease	86-03-004			
P-11m	860212	2/28/86	Hydrocarbon Fuels	86-03-004			
			Hydrogenated vols. (601)	86-03-002			
			Aromatic vols. (602)	86-03-002			
			Pesticides & PCBs (608)	86-03-018	3/6/86	3/24/86	
			B/N & Acid Semi-vols. (625)	86-03-018	3/6/86	3/24/86	
P-11m	860211	2/28/86	Metals	86-03-004			Duplicate of 860212
			Oil and Grease	86-03-004			
			Hydrocarbon Fuels	86-03-004			
			Hydrogenated vols. (601)	86-03-002			
			Aromatic vols. (602)	86-03-002			
P-12u	860213	3/1/86	Pesticides & PCBs (608)	86-03-018	3/6/86	3/24/86	
			B/N & Acid Semi-vols. (625)	86-03-018	3/6/86	3/24/86	
			Metals	86-03-004			
			Oil and Grease	86-03-004			
			Hydrocarbon Fuels	86-03-004			
P-12u	860213	3/1/86	Hydrogenated vols. (601)	86-03-003			
			Aromatic vols. (602)	86-03-003			
			Pesticides & PCBs (608)	86-03-021	3/5/86	3/24/86	
			B/N & Acid Semi-vols. (625)	86-03-021	3/5/86	3/24/86	
			Metals	86-03-004			
P-12u	860213	3/1/86	Oil and Grease	86-03-004			
			Hydrocarbon Fuels	86-03-004			
			Hydrogenated vols. (601)	86-03-003			
			Aromatic vols. (602)	86-03-003			
			Pesticides & PCBs (608)	86-03-021	3/5/86	3/24/86	
P-12u	860213	3/1/86	B/N & Acid Semi-vols. (625)	86-03-021	3/5/86	3/24/86	
			Metals	86-03-004			
			Oil and Grease	86-03-004			
			Hydrocarbon Fuels	86-03-004			
			Hydrogenated vols. (601)	86-03-003			

(cont inued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
P-12a	860214	3/1/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels	86-03-003 86-03-003 86-03-021 86-03-021 86-03-004 86-03-004 86-03-004 86-03-003	3/5/86 3/5/86	3/24/86 3/24/86	Duplicate of 860214
P-12a	860215	3/1/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels	86-03-003 86-03-003 86-03-021 86-03-021 86-03-004 86-03-004 86-03-004 86-03-003	3/5/86 3/5/86	3/24/86 3/24/86	
P-20a	860218	4/9/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels	86-03-004 86-03-004 86-04-069 86-04-069 86-04-070 86-04-070 86-04-069 86-04-069	4/10/86 4/10/86	4/23/86 4/23/86	
P-20a	860219	4/9/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels	86-04-069 86-04-069 86-04-070 86-04-070 86-04-069 86-04-069 86-04-069	4/10/86 4/10/86	4/23/86 4/23/86	Duplicate of 860218
P-21u	860221	4/10/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels	86-04-084 86-04-084 86-04-085 86-04-085 86-04-084 86-04-084 86-04-084	4/14/86 4/14/86	4/24/86 4/24/86	
P-22u	860223	4/10/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels	86-04-084 86-04-084 86-04-085 86-04-085 86-04-084 86-04-084 86-04-084	4/14/86 4/14/86	4/22/86 4/22/86	
P-23u	860225	4/8/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels	86-04-164 86-04-164 86-04-135 86-04-135 86-04-164 86-04-164 86-04-164	4/23/86 4/23/86	4/28/86 4/28/86	
P-23u	860257	8/21/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels	86-08-093 86-08-093 86-08-034 86-08-034 86-08-095 86-08-095 86-08-095	1/31/86 1/31/86	2/7/86 2/7/86	
C-1	860100	1/29/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels	86-01-239 86-01-239 86-01-242 86-01-242 86-01-240 86-01-240 86-01-240	1/31/86 1/31/86	2/7/86 2/7/86	

(continued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OBHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
C-2	860102	1/29/86	Halogenated vols. (601)	86-01-239			
			Aromatic vols. (602)	86-01-239			
			Pesticides & PCBs (608)	86-01-242	1/31/86	2/7/86	
			B/N & Acid Semi-vols. (625)	86-01-242	1/31/86	2/7/86	
C-3	860105	1/30/86	Metals	86-01-240			
			Halogenated vols. (601)	86-01-239			
			Aromatic vols. (602)	86-01-239			
			Pesticides & PCBs (608)	86-01-242	1/31/86	2/11/86	
C-4	860107	1/30/86	B/N & Acid Semi-vols. (625)	86-01-242	1/31/86	2/11/86	
			Metals	86-01-240			
			Halogenated vols. (601)	86-01-239			
			Aromatic vols. (602)	86-01-239			
C-5	860101	1/29/86	Pesticides & PCBs (608)	86-01-242	1/31/86	2/7/86	
			B/N & Acid Semi-vols. (625)	86-01-242	1/31/86	2/7/86	
			Metals	86-01-240			
			Halogenated vols. (601)	86-01-239			
Creek Seep	860106	1/30/86	Aromatic vols. (602)	86-01-239			
			Pesticides & PCBs (608)	86-01-242	1/31/86	2/7/86	
			B/N & Acid Semi-vols. (625)	86-01-242	1/31/86	2/7/86	
			Metals	86-01-240			
Drain Pipe	860153	2/12/86	Halogenated vols. (601)	86-01-239			
			Aromatic vols. (602)	86-01-239			
			Pesticides & PCBs (608)	86-01-242	1/31/86	2/7/86	
			B/N & Acid Semi-vols. (625)	86-01-242	1/31/86	2/7/86	
French Drain 1	860154	2/12/86	Metals	86-02-075			
			Hydrogenated vols. (601)	86-02-075			
			Aromatic vols. (602)	86-02-075			
			Pesticides & PCBs (608)	86-02-078	2/13/86	2/27/86	
French Drain 2	860155	2/12/86	B/N & Acid Semi-vols. (625)	86-02-078	2/13/86	2/27/86	
			Metals	86-02-079			
			Hydrogenated vols. (601)	86-02-075			
			Aromatic vols. (602)	86-02-075			
Outfall #1	860246	8/20/86	Pesticides & PCBs (608)	86-02-078	2/13/86	2/28/86	
			B/N & Acid Semi-vols. (625)	86-02-078	2/13/86	2/28/86	
			Metals	86-02-079			
			Hydrogenated vols. (601)	86-02-085			(1030)
Outfall #1	860247	8/20/86	Aromatic vols. (602)	86-02-075	2/13/86	2/28/86	
			Pesticides & PCBs (608)	86-02-078	2/13/86	2/28/86	
			B/N & Acid Semi-vols. (625)	86-02-078	2/13/86	2/28/86	
			Metals	86-02-079			(1130)

(continued)

TABLE A.1-6. (Continued)

Well or Soil Boring Number	OEH Number	Date Sampled	Analyses Performed	RAS Work		Comments
				Order Number	Date Extracted Analyzed	
Outfall #1	860248	8/20/86	Hydrogenated vols. (601)	86-08-092		(1230)
			Aromatic vols. (602)	86-08-092		
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
Outfall #1	860249	8/20/86	Hydrogenated vols. (601)	86-08-092		(1330)
			Aromatic vols. (602)	86-08-092		
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
Outfall #1	860250	8/20/86	Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
Outfall #1	860251	8/20/86	Hydrogenated vols. (601)	82-08-094		(1530)
			Aromatic vols. (602)	86-08-092		
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
Outfall #1	860252	8/20/86	Hydrogenated vols. (601)	86-08-092		(1630)
			Aromatic vols. (602)	86-08-092		
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
Outfall #1	860253	8/20/86	Hydrogenated vols. (601)	86-08-092		(1730)
			Aromatic vols. (602)	86-08-092		
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
Outfall #1	860254	8/20/86	Hydrogenated vols. (601)	86-08-092		Composite (1030-1730)
			Aromatic vols. (602)	86-08-092		
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
Outfall #1	860255	8/20/86	Hydrogenated vols. (601)	86-08-092		(1730) Duplicate of 860254
			Aromatic vols. (602)	86-08-092		
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
Outfall #5	860237	8/20/86	Hydrocarbon Fuels	86-08-094		(0930)
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
			Oil and Grease	86-08-094		
Outfall #5	860238	8/20/86	Hydrocarbon Fuels	86-08-094		(Composite 0930-0530)
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
			Oil and Grease	86-08-094		
Outfall #5	860239	8/20/86	Hydrocarbon Fuels	86-08-094		(1130)
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
			Oil and Grease	86-08-094		
Outfall #5	860240	8/20/86	Hydrocarbon Fuels	86-08-094		(1230)
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
			Oil and Grease	86-08-094		
Outfall #5	860241	8/20/86	Hydrocarbon Fuels	86-08-094		(1330)
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
			Oil and Grease	86-08-094		
Outfall #5	860242	8/20/86	Hydrocarbon Fuels	86-08-094		(1430)
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
			Oil and Grease	86-08-094		
Outfall #5	860243	8/20/86	Hydrocarbon Fuels	86-08-094		(1530)
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
			Oil and Grease	86-08-094		
Outfall #5	860244	8/20/86	Hydrocarbon Fuels	86-08-094		(1630)
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
			Oil and Grease	86-08-094		
Outfall #5	860245	8/20/86	Hydrocarbon Fuels	86-08-094		(1730)
			Oil and Grease	86-08-094		
			Hydrocarbon Fuels	86-08-094		
			Oil and Grease	86-08-094		

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PAGE 1
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Analytical Serv

REPORT

LAB # 86-02-169

REPORT TO
Radian Corporation
Larry French
Austin, Texas

PREPARED BY
Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN
CLIENT
COMPANY
FACILITY
PLANT 4
General Dynamics
DEHL Plant 4, Bldg 4
Austin, Texas

Lucy A. French
CERTIFIED BY

ATTEN
PHONE (512) 454-4797

CONTACT FRENCH

WORK ID
TAKEN
TRANS
TYPE
P.O. #
INVOICE
Plant 4
2/25/86
Fed Ex 764773273
H2O
212-027-27-40
under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit.
Potential error for such low values ranges between
50 and 100%.

@ Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

SAMPLE IDENTIFICATION

01 860190 H2O
02 860191 H2O
03 860192 H2O
04 860194 H2O
05 Reagent Blank 625

Analytical Serv TEST CODES and NAMES used on this report

EX 625 Extraction only - 625 BN/A
M625 A Method 625 Acid Compounds
M625 B Method 625 Base/Neutrals
MS 608 Pesticides & PCBs by GC/MS

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Analytical Serv REPORT
RESULTS BY TEST LAB # 86-02-169

TEST CODE	Sample 01	Sample 02	Sample 03	Sample 04	Sample 05
default units	(entered units)	(entered units)	(entered units)	(entered units)	(entered units)
EX 625	02/27/86	02/27/86	02/27/86	02/27/86	02/27/86
date complete					

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SAMPLE ID 860190 H2O

Analytical Serv
Results by Sample

REPORT
LAB # 86-02-169

FRACTION 01A
Date & Time Collected 02/25/86

TEST CODE M625 A
NAME Method 625 Acid Compounds

Category

DATA FILE 5CU02169C01
CONC. FACTOR 1

DATE EXTRACTED 03/12/86
DATE INJECTED 02/20/86

ANALYST
INSTRUMENT

MM
3100

VERIFIED BY LAK
COMPOUNDS DETECTED 1

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	37Z	phenol	3
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
376 AS1	d5-phenol	75
272 AS2	2-fluorophenol	73
970 AS3	2,4,6-tribromophenol	127
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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CORPORATION

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SAMPLE ID 860190 H2O

Analytical Serv

Results by Sample

REPORT

LAB # 86-02-169

Continued From Above

FRACTION 01A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/25/86

Category

ND = not detected at EPA detection limit method 625. (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

LAB # 86-02-169

Results by Sample

SAMPLE ID 860190 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/25/86

Category

DATA FILE SCU02169C01			DATE EXTRACTED		02/27/86		ANALYST		MM		VERIFIED BY LAK	
CONC. FACTOR			DATE INJECTED		03/12/86		INSTRUMENT		5100		COMPOUNDS DETECTED	
NPDES	SCAN	EPA	COMPOUND	RESULT	NPDES	SCAN	EPA	COMPOUND	RESULT			
1B	1B		acenaphthene	ND	41B	156	61B	N-nitrosodimethylamine	6			
4B	5B		benzidine	ND	43B		62B	N-nitrosodiphenylamine	ND			
46B	8B		1,2,4-trichlorobenzene	ND	42B		63B	N-nitrosodi-n-propylamine	ND			
33B	9B		hexachlorobenzene	ND	13B		66B	bis(2-ethylhexyl)phthalate	ND			
36B	12B		hexachloroethane	ND	15B		67B	butyl benzyl phthalate	ND			
11B	18B		bis(2-chloroethyl)ether	ND	26B		68B	di-butyl phthalate	ND			
16B	20B		2-chloronaphthalene	ND	29B		69B	di-n-octyl phthalate	ND			
20B	25B		1,2-dichlorobenzene	ND	24B		70B	diethyl phthalate	ND			
21B	26B		1,3-dichlorobenzene	ND	25B		71B	dimethyl phthalate	ND			
22B	27B		1,4-dichlorobenzene	ND	5B		72B	benzo(a)anthracene A	ND			
23B	28B		3,3'-dichlorobenzidine	ND	6B		73B	benzo(a)pyrene	ND			
27B	35B		2,4-dinitrotoluene	ND	7B		74B	benzo(b)fluoranthene *	ND			
28B	36B		2,6-dinitrotoluene	ND	9B		75B	benzo(k)fluoranthene *	ND			
29B	37B		1,2-diphenylhydrazine	ND	18B		76B	chrysene A	ND			
31B	39B		fluoranthene	ND	2B		77B	acenaphthylene	ND			
17B	40B		4-chlorophenyl phenyl ether	ND	3B		78B	anthracene B	ND			

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SAMPLE ID 860190 H2O

Analytical Serv

Results by Sample

REPORT

LAB # 86-02-169

Continued From Above

FRACTION 01A TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected 02/25/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
489 BS1	d5-nitrobenzene 94
749 BS2	2-fluorobiphenyl 100
1325 BS3	d14-terphenyl 106
BS4	d10-biphenyl

4 006

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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SAMPLE ID 860190 H20

Analytical Serv

Results by Sample

REPORT

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/25/86

Category

LAB # 86-02-169

Continued From Above

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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SAMPLE ID 860190 H20

Analytical Serv

Results by Sample

REPORT

LAB # 86-02-169

FRACTION 01A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/25/86

Category

DATA FILE 5CU02169C01
CONC. FACTOR

DATE EXTRACTED 02/27/86
DATE INJECTED 03/12/86

ANALYST MM

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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SAMPLE ID 860190 H2O

Analytical Serv

Results by Sample

REPORT

LAB # 86-02-169

Continued From Above

FRACTION 01A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/25/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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REPORT

Results by Sample

LAB # 86-02-169

SAMPLE ID 860191 H2O

FRACTION 02A TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/25/86

Category

DATA FILE 5CU02169C02
CONC. FACTOR 1.4

DATE EXTRACTED 02/27/86
DATE INJECTED 03/12/86

ANALYST
INSTRUMENT

MM
5100

VERIFIED BY LAK
COMPOUNDS DETECTED 1

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	376	phenol	2
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
<u>375</u> AS1	d5-phenol	<u>64</u>
<u>273</u> AS2	2-fluorophenol	<u>58</u>
<u>968</u> AS3	2,4,6-tribromophenol	<u>124</u>
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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SAMPLE ID 860191 H2O

Analytical Serv

Results by Sample

REPORT

LAB # 86-02-169

Continued From Above

FRACTION 02A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 02/25/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

SL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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SAMPLE ID 860191 H20

Analytical Serv

Results by Sample

REPORT

LAB # 86-02-169

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/25/86

Category

DATA FILE	SCU02169C02	DATE EXTRACTED	02/27/86	ANALYST	MM	VERIFIED BY	LAK
CONC. FACTOR	1.4	DATE INJECTED	03/12/86	INSTRUMENT	3100	COMPOUNDS DETECTED	0
NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Results by Sample

REPORT

LAB # 86-02-169

Continued From Above

SAMPLE ID 860191 H20

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/25/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
488 BS1	d5-nitrobenzene 72
749 BS2	2-fluorobiphenyl 78
1323 BS3	d14-terphenyl 102
BS4	d10-biphenyl

4 013

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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SAMPLE ID 860191 H20

Analytical Serv
Results by Sample

REPORT
LAB # 86-02-169
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FRACTION 02A TEST CODE M625 B NAME Method 625 Base/Neutrals
Date & Time Collected 02/25/86 Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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 SAMPLE ID 860191 H2D
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 Results by Sample
 REPORT
 LAB # 86-02-169
 FRACTION 02A
 TEST CODE MS 608
 NAME Pesticides & PCBs by GC/MS
 Date & Time Collected 02/25/86
 Category

DATA FILE 5CU02169C02
 CONC. FACTOR
 DATE EXTRACTED 02/27/86
 DATE INJECTED 03/12/86
 ANALYST
 MM
 VERIFIED BY LAK
 COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Analytical Serv
Results by Sample

REPORT
TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS
Date & Time Collected 02/25/86 Category _____

LAB # 86-02-169
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NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-02-169

SAMPLE ID 860192 H27 ✓

FRACTION 03A TEST CODE M625 A NAME Method 625 Acid Compounds
Date & Time Collected 02/25/86 Category

DATA FILE 5CU02169C03
CONC. FACTOR 1

DATE EXTRACTED 02/27/86
DATE INJECTED 03/12/86

ANALYST
INSTRUMENT

MM
5100

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
375 AS1	d3-phenol	62
272 AS2	2-fluorophenol	62
970 AS3	2,4,6-tribromophenol	112
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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SAMPLE ID 860192 H2O

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Results by Sample

REPORT

LAB # 86-02-169

Continued From Above

FRACTION 03A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/25/86

Category

ND = not detected at EPA detection limit method 625. (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection
limits should be multiplied by conc. factor.

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Results by Sample

REPORT

LAB # 86-02-169

SAMPLE ID 860192 H20

FRACTION 03A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/25/86

Category

DATA FILE 5CU02169C03		DATE EXTRACTED		02/27/86		ANALYST		MM		VERIFIED BY LAK	
CONC. FACTOR		DATE INJECTED		03/12/86		INSTRUMENT		3100		COMPOUNDS DETECTED	
NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT				
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND				
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND				
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND				
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND				
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND				
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND				
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND				
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND				
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND				
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND				
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND				
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND				
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND				
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND				
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND				
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND				

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REPORT

Results by Sample

LAB # 86-02-169

Continued From Above

SAMPLE ID 860192 H20

FRACTION 03A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/25/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
489 BS1	d5-nitrobenzene 82
750 BS2	2-fluorobiphenyl 90
1325 BS3	d14-terphenyl 110
BS4	d10-biphenyl

4 020

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Results by Sample

REPORT
LAB # 86-02-169
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FRACTION Q3A TEST CODE M625 B NAME Method 625 Base/Neutrals
Date & Time Collected 02/25/86 Category

S = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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 REPORT
 FRACTION 03A
 TEST CODE MS 608
 NAME Pesticides & PCBs by GC/MS
 Date & Time Collected 02/25/86
 Category
 LAB # 86-02-169

DATA FILE 5CU02169C03
 CONC. FACTOR
 DATE EXTRACTED 02/27/86
 DATE INJECTED 03/12/86
 ANALYST
 MM
 VERIFIED BY LAK
 COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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SAMPLE ID 860192 H2O

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Results by Sample

REPORT

LAB # 86-02-169

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FRACTION 03A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/25/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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SAMPLE ID 860194 H2O

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Results by Sample

REPORT

LAB # 86-02-169

FRACTION 04A TEST CODE M625 A NAME Method 625 Acid Compounds
Date & Time Collected 02/25/86 Category

DATA FILE 5CU02169C04
CONC. FACTOR 1

DATE EXTRACTED 02/27/86
DATE INJECTED 03/11/86

ANALYST INSTRUMENT

MM 3100
COMPOUNDS DETECTED 1

VERIFIED BY LAK

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	377	phenol	1
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
375 AS1	d5-phenol	87
272 AS2	2-fluorophenol	78
970 AS3	2,4,6-tribromophenol	127
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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Results by Sample

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LAB # 86-02-169

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SAMPLE ID 860194 H2O

FRACTION 04A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 02/25/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Results by Sample

REPORT

LAB # 86-02-169

SAMPLE ID 860194 H20

FRACTION 04A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/25/86

Category

DATA FILE	SCU02169C04	DATE EXTRACTED	02/27/86	ANALYST	INSTRUMENT	MM	VERIFIED BY LAK
CONC. FACTOR	1	DATE INJECTED	03/12/86			3100	COMPOUNDS DETECTED 1
NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
18	18	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
48	58	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B 117B	68B	di-n-butyl phthalate	1
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Results by Sample

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LAB # 86-02-169
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SAMPLE ID 860194 H20

FRACTION 04A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/25/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
488 BS1	d5-nitrobenzene 106
749 BS2	2-fluorobiphenyl 116
1324 BS3	d14-terphenyl 122
BS4	d10-biphenyl

4 027

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
+ = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Results by Sample

REPORT

LAB # 86-02-169

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FRACTION 04A TEST CODE M625 B NAME Method 625 Base/Neutrals
Date & Time Collected 02/25/86 Category _____

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CENC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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REPORT

LAB # 86-02-169

Results by Sample

SAMPLE ID 860194 H20

FRACTION 04A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/25/86

Category

DATA FILE 5CU02169C04
CONC. FACTOR

DATE EXTRACTED 02/27/86
DATE INJECTED 03/12/86

ANALYST MM

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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SAMPLE ID 860194 H20

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Results by Sample

REPORT

LAB # 86-02-169

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FRACTION 04A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/25/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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REPORT

LAB # 86-02-169

SAMPLE ID Reagent Blank 625

FRACTION 05A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 5CU02171C03
CONC. FACTOR 1

DATE EXTRACTED 02/27/86
DATE INJECTED 03/12/86

ANALYST
INSTRUMENT

WJL
5100

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
375 AS1	d5-phenol	79
272 AS2	2-fluorophenol	76
969 AS3	2,4,6-tribromophenol	146
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

RADIAN
CORPORATION

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-169

Continued From Above

SAMPLE ID Reagent Blank 625

FRACTION 05A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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REPORT

LAB # 86-02-169

Results by Sample

SAMPLE ID Reagent Blank 625

FRACTION 05A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE SCU02171C03		DATE EXTRACTED 02/27/86		ANALYST		MM		VERIFIED BY LAK	
CONC. FACTOR 1		DATE INJECTED 03/12/86		INSTRUMENT		5100		COMPOUNDS DETECTED 0	
NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT		
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND		
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND		
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND		
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND		
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND		
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND		
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND		
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND		
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND		
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND		
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND		
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND		
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND		
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND		
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND		
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND		

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Results by Sample

REPORT

LAB # 86-02-169

Continued From Above

SAMPLE ID Reagent Blank 625

FRACTION 05A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
375 BS1	d5-nitrobenzene 79
749 BS2	2-fluorobiphenyl 104
1324 BS3	d14-terphenyl 128
BS4	d10-biphenyl

4 034

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.
 A = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.

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CORPORATION

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-169

Continued From Above

SAMPLE ID Reagent Blank 625

FRACTION 05A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

g = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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SAMPLE ID Reagent Blank 625

Analytical Serv

Results by Sample

REPORT

LAB # 86-02-169

FRACTION 05A

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

DATA FILE 5CU02171C03
CONC. FACTOR

DATE EXTRACTED 02/27/86
DATE INJECTED 03/12/86

ANALYST

MM

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dielddrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordan	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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03
05

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-169

Continued From Above

SAMPLE ID Reagent Blank 625

FRACTION 05A

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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REPORT

LAB # 86-02-169

NonReported Work

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B : DUP_NS
03B : DUP_NS
04B : DUP_NS

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Analytical Serv
04/04/86 16:33:19

LAB # 86-02-176

REPORT Radian
TO BIL 4
Austin
ATTN Larry French
CLIENT PLANT 4
COMPANY Plant 4
FACILITY Carswell AFB (Gen Dynamics)

PREPARED Radian Analytical Services
BY 8501 McPac Blvd
P O Box 9748
Austin, Texas 78766
ATTN
PHONE (512) 454-4797

Angela
CERTIFIED BY
CONTACT CONOVER

WORK ID groundwater
TAKEN WJFS
TRANS Fed Ex
TYPE
P.O. # 212-027-27-40
INVOICE under separate cover

Second column confirmation for EPA 601 -03; for EPA 602 -01 and -02

Footnotes and Comments

* Indicates a value less than 5 times the detection limit.
Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 860195
02 860196
03 860197
04 860198
05 860200
06 860199

Analytical Serv TEST CODES and NAMES used on this report

AG F Silver, ICPEs
AS GA Arsenic, low level
BA F Barium, ICPEs
CD E Cadmium, ICPEs
CR F Chromium, ICPEs
DG3020 Digestion by Method 3020
DG5010 Digestion by Method 6010
GC 501 EPA Method 601/GC
GC 502 EPA Method 602/GC
HC IR Hydrocarbons
HG CA Mercury, Cold Vapor
ONG IR Oil and Grease, Infrared
PB GA Lead, low level
SE GA Selenium, low level
XYLENE Xylenes

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 Analytical Serv
 RESULTS BY TEST

LAB # 86-02-176

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
AG E ug/ml	0.010	0.011	0.003*	0.020	0.008*
AS GA ug/ml	0.046	0.047	<.003	0.11	<.003
BA E ug/ml	0.19	0.17	0.072	0.18	0.093
CD E ug/ml	<.002	<.002	<.002	0.003*	<.002
CR E ug/ml	0.075	0.070	0.006*	0.17	0.014*
DG3020 date complete	03/12/86	03/12/86	03/12/86	03/12/86	03/12/86
DG6010 date complete	03/18/86	03/18/86	03/18/86	03/18/86	03/18/86
HC IR mg/L	<1	<1	<1	<1	<1
HG CA ug/ml	<.0002	<.0002	<.0002	<.0002	<.0002
UNG IR mg/L	<1	<1	<1	<1	<1
PB GA ug/ml	0.024	0.023	0.007	0.080	<.001E
SE GA ug/ml	<.004	<.004	<.004E	<.004	<.004

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Analytical Serv

REPORT

LAB # 86-02-176

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RESULTS BY TEST

TEST CODE default units	Sample 06 (entered units)
ONG IR mg/L	CI

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Analytical Serv
Results by Sample

LAB # 85-02-176

REPORT

SAMPLE ID 860195

FRACTION Q1A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/25/86

Category

DATA FILE _____ C _____
CONC. FACTOR _____ J _____
DATE INJECTED 02/27/86
ANALYST _____ MCL _____
INSTRUMENT _____ g _____
VERIFIED BY MCL _____
COMPOUNDS DETECTED _____

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
1	Chloromethane	ND	2	Trichloroethene	0.74
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	1.24		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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SAMPLE ID 860195
Analytical Serv
Results by Sample
FRACTION 01A
Date & Time Collected 02/25/86
REPORT
LAB # 86-02-176
Continued From Above
TEST CODE GC 601
NAME EPA Method 601/GC
Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv

REPORT

LAB # 86-02-176

Results by Sample

SAMPLE ID 860195

FRACTION OIC TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 02/25/86

Category

DATA FILE _____ D _____ ANALYST _____ HP _____ VERIFIED BY MCL
CONC FACTOR _____ 1 _____ INSTRUMENT _____ 3 _____ COMPOUNDS DETECTED _____ 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
	Toluene	ND		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,2-Dichlorobenzene	ND
	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.

All results reported in _____ ug/l unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/2/79).

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Analytical Serv

REPORT

LAB # 86-02-176

Results by Sample

SAMPLE ID 860196

FRACTION 02A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/25/86

Category

DATA FILE _____ G _____ DATE INJECTED 02/27/86 ANALYST _____ S _____ VERIFIED BY KCL
CONC FACTOR _____ J _____ INSTRUMENT _____ FE _____ COMPOUNDS DETECTED _____

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
---	Chloromethane	ND	3	Trichloroethene	0.04
---	Bromomethane	ND	---	Dibromochloromethane *	ND
---	Vinyl Chloride	ND	---	1,1,2-Trichloroethane *	ND
---	Chloroethane	ND	---	cis-1,3-Dichloropropene *	ND
---	Methylene Chloride	ND	---	2-Chloroethylvinyl Ether	ND
---	Trichlorofluoromethane	ND	---	Bromoform	ND
---	1,1-Dichloroethene	ND	---	1,1,2,2-Tetrachloroethane #	ND
---	1,1-Dichloroethane	ND	---	Tetrachloroethylene #	ND
1	trans-1,2-Dichloroethene	2.02	---	Chlorobenzene	ND
---	Chloroform	ND	---	1,3-Dichlorobenzene	ND
---	1,2-Dichloroethane	ND	---	1,2-Dichlorobenzene	ND
---	1,1,1-Trichloroethane	0.05	---	1,4-Dichlorobenzene	ND
---	Carbon tetrachloride	ND			
---	Bromodichloromethane	ND			
---	1,2-Dichloropropane	ND			
---	trans-1,3-Dichloropropene	ND			

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ANALYTICAL SERV REPORT
Results by Sample
LAB # 86-02-176
Continued From Above
SAMPLE ID 860196
FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/60
Date & Time Collected 02/25/86 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79)
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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SAMPLE ID 860196

FRACTION	Q2C	TEST CODE	GC	602
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
18	18	18	18	18
19	19	19	19	19
20	20	20	20	20
21	21	21	21	21
22	22	22	22	22
23	23	23	23	23
24	24	24	24	24
25	25	25	25	25
26	26	26	26	26
27	27	27	27	27
28	28	28	28	28
29	29	29	29	29
30	30	30	30	30
31	31	31	31	31
32	32	32	32	32
33	33	33	33	33
34	34	34	34	34
35	35	35	35	35
36	36	36	36	36
37	37	37	37	37
38	38	38	38	38
39	39	39	39	39
40	40	40	40	40
41	41	41	41	41
42	42	42	42	42
43	43	43	43	43
44	44	44	44	44
45	45	45	45	45
46	46	46	46	46
47	47	47	47	47
48	48	48	48	48
49	49	49	49	49
50	50	50	50	50
51	51	51	51	51
52	52	52	52	52
53	53	53	53	53
54	54	54	54	54
55	55	55	55	55
56	56	56	56	56
57	57	57	57	57
58	58	58	58	58
59	59	59	59	59
60	60	60	60	60
61	61	61	61	61
62	62	62	62	62
63	63	63	63	63
64	64	64	64	64
65	65	65	65	65
66	66	66	66	66
67	67	67	67	67
68	68	68	68	68
69	69	69	69	69
70	70	70	70	70
71	71	71	71	71
72	72	72	72	72
73	73	73	73	73
74	74	74	74	74
75	75	75	75	75
76	76	76	76	76
77	77	77	77	77
78	78	78	78	78
79	79	79	79	79
80	80	80	80	80
81	81	81	81	81
82	82	82	82	82
83	83	83	83	83
84	84	84	84	84
85	85	85	85	85
86	86	86	86	86
87	87	87	87	

Date & Time Collected 02/25/86

DATA FILE	_____D_____
CONC. FACTOR	_____1_____

DATE INJECTED 02/27/86

ANALYST
INSTRUMENT

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VERIFIED BY NCL
COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
1	Benzene	ND	1	1,4-Dichlorobenzene	ND
2	Toluene	ND	2	1,3-Dichlorobenzene	ND
3	Ethyl Benzene	ND	3	1,2-Dichlorobenzene	ND
4	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT

GCAN = scan number or retention time on chromatogram.

All results reported in _____ug/l unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

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REPORT

LAB # 86-02-176

Results by Sample

SAMPLE ID 860197

FRACTION 03A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/25/86

Category

DATA FILE 6
CUNC FACTOR 10
DATE INJECTED 02/27/86
ANALYST INSTRUMENT 9
VERIFIED BY MCL
COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	79.1
	Bromomethane	ND		Dibromochloromethane	*
	Vinyl Chloride	ND		1,1,2-Trichloroethane	*
	Chloroethane	ND		cis-1,3-Dichloropropene	*
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	#
	1,1-Dichloroethane	ND	2	Tetrachloroethylene	#
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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REPORT

Results by Sample

LAB # 86-02-176
Continued From Above

SAMPLE ID 860197

FRACTION 03A

TEST CODE GC 601

NAME EPA Method 601/EC

Date & Time Collected 02/25/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79)

*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.

#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Results by Sample

LAB # 86-02-176

SAMPLE ID 860197

FRACTION 03C TEST CODE GC 602
Date & Time Collected 02/25/86

NAME EPA Method 602/GC
Category

DATA FILE: _____ ID: _____ DATE INJECTED 02/27/86 ANALYST: _____ INSTRUMENT: _____
CONC. FACTOR: _____ 10 _____ VERIFIED BY: _____
COMPOUNDS DETECTED: _____

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
	Toluene	ND		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,2-Dichlorobenzene	ND
	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram
All results reported in _____ ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

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REPORT

LAB # 86-02-176

Results by Sample

SAMPLE ID 860198

FRACTION 04A

TEST CODE GC 601

NAME EPA Method 601/60

Date & Time Collected 02/25/86

Category

DATA FILE _____ G _____ DATE INJECTED 02/27/86 ANALYST _____ RP _____ VERIFIED BY MCL
CONC. FACTOR _____ 1 _____ INSTRUMENT _____ 9 _____ COMPOUNDS DETECTED 13

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
---	Chloromethane	ND	1	Trichloroethane	0.12
---	Bromomethane	ND	---	Dibromochloromethane *	ND
---	Vinyl Chloride	ND	---	1,1,2-Trichloroethane *	ND
---	Chloroethane	ND	---	cis-1,3-Dichloropropene *	ND
---	Methylene Chloride	ND	---	2-Chloroethylvinyl Ether	ND
---	Trichlorofluoromethane	ND	---	Bromoform	ND
---	1,1-Dichloroethene	ND	---	1,1,2,2-Tetrachloroethane #	ND
---	1,1-Dichloroethane	ND	2	Tetrachloroethylene #	0.12
---	trans-1,2-Dichloroethene	ND	---	Chlorobenzene	ND
---	Chloroform	ND	---	1,3-Dichlorobenzene	ND
---	1,2-Dichloroethane	ND	---	1,2-Dichlorobenzene	ND
---	1,1,1-Trichloroethane	ND	---	1,4-Dichlorobenzene	ND
---	Carbon Tetrachloride	ND	---		
---	Bromodichloromethane	ND	---		
---	1,2-Dichloropropane	ND	---		
---	trans-1,3-Dichloropropene	ND	---		

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CORPORATION

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Results by Sample

REPORT

LAB # 86-02-176
Continued From Above

SAMPLE ID 860198

FRACTION 04A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/25/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).

*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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REPORT

Results by Sample

LAB # 86-02-176

SAMPLE ID 860198

FRACTION 04C

TEST CODE GC 602

NAME EPA Method 602/GC

Date & time Collected 02/25/86

Category

DATA FILE _____
CONC FACTOR _____

DATE INJECTED 02/27/86

ANALYST _____
INSTRUMENT _____

VERIFIED BY MEL _____
COMPOUNDS DETECTED _____

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
1	Toluene	2.71		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,2-Dichlorobenzene	ND
	Chlorobenzene	ND			

4 053

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in _____ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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RECEIVED: 02/27/86 Results by Sample

SAMPLE ID 860200 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/25/86 Category

DATA FILE _____ G DATE INJECTED 02/27/86 ANALYST _____ RP VERIFIED BY MCL
CONC. FACTOR 1 INSTRUMENT 3 COMPOUNDS DETECTED 4

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
1	Chloromethane	ND	4	Trichloroethane	0.14
	Bromomethane	ND	5	Dibromochloromethane	0.45
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	0.42		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND	6	tetrachloroethylene	0.10
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
2	Chloroform	3.95		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon tetrachloride	ND			
3	Bromodichloromethane	1.97			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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RECEIVED: 02/27/86
SAMPLE ID 860200

Analytical Serv
Results by Sample

LAB # 86-02-176
Continued From Above

FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/25/86 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv
 Results by Sample

REPORT

LAB # 86-02-176

SAMPLE ID 860200

FRACTION 05C

TEST CODE GC 602

NAME EPA Method 602/GC

Date & Time Collected 02/25/86

Category

DATA FILE: _____ D _____ ANALYST: _____ RP _____ VERIFIED BY MCL
 CONC. FACTOR: _____ 1 _____ INSTRUMENT: _____ 1 _____ COMPOUNDS DETECTED: _____ 1 _____

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
---	Benzene	ND	---	1,4-Dichlorobenzene	ND
1	Toluene	0.92	---	1,3-Dichlorobenzene	ND
---	Ethyl Benzene	ND	---	1,2-Dichlorobenzene	ND
---	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in _____ ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-176

SAMPLE ID 860199

FRACTION 06A

TEST CODE XYLENE

NAME Xylenes

Date & Time Collected 02/25/86

Category

DATA FILE: _____ D _____ DATE INJECTED 02/28/86 ANALYST _____ MCL _____ VERIFIED BY MCL
CONC. FACTOR: _____ 1 _____ INSTRUMENT _____ d _____ COMPOUNDS DETECTED _____ 0

SCAN	COMPOUND	RESULT
_____	p-xylene	ND
_____	m-xylene	ND
_____	o-xylene	ND

4 057

NOTES AND DEFINITIONS FOR THIS REPORT:

SCAN = scan number or retention time on chromatogram
All results reported in _____ ug/l unless otherwise specified.
ND = not detected

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Analytical Serv

REPORT

NonReported Work

LAB # 86-02-176

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	:	DUP601	01D	:	DUP602
02B	:	DUP601	02D	:	DUP602
03B	:	DUP601	03D	:	DUP602
04B	:	DUP601	04D	:	DUP602
05B	:	DUP601	05D	:	DUP602
06B	:	DUP	NS	:	

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Analytical Serv

REPORT

LAB # 86-02-179

04/21/86 10:08:33

REPORT Radian Corporation
TO Larry French
Austin, Texas

PREPARED Radian Analytical Services
BY 8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN

ATTEN
PHONE (512) 454-4797

CONTACT FRENCH

CLIENT PLANT 4 SAMPLES 6
COMPANY General Dynamics
FACILITY OEHL Plant 4, Bldg 4
Austin, Texas

WORK ID Plant 4 Ft. Worth, TX
TAKEN 2/26/86
TRANS Fed Ex 3439406
TYPE H2O
P.O. # 212-027-27-40
INVOICE under separate cover

3,3'-DICHLOROBENZIDINE OUT OF GC SPECIFICATIONS IN MATRIX
SPIKE DUE TO MATRIX EFFECT THIS VERIFIED BY METHOD SPIKE
RECOVERY WITHIN LIMITS.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit.
Potential error for such low values ranges between
50 and 100%.

@ Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

SAMPLE IDENTIFICATION

01 860195 H2O
02 860196 H2O
03 860197 H2O
04 860202 H2O
05 860195 Duplicate Analysis
05 860196 Matrix Spike BNA
05 Reagent Blank 625
06 Method Spike BNA

Analytical Serv TEST CODES and NAMES used on this report

EX 625 Extraction only - 625 BN/A
M625 A Method 625 Acid Compounds
M625 B Method 625 Base/Neutrals
MS 608 Pesticides & PCBs by GC/MS

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Analytical Serv

REPORT

LAB # 86-02-179

Results by Sample

SAMPLE ID 850195 Duplicate Analysis

FRACTION 05B

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE SCD02179C05
CONC. FACTOR 1

DATE EXTRACTED 02/28/86
DATE INJECTED 03/13/86

ANALYST WJL
INSTRUMENT 5100
VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
<u>377</u> AS1	d5-phenol	<u>71</u>
<u>275</u> AS2	2-fluorophenol	<u>72</u>
<u>970</u> AS3	2,4,6-tribromophenol	<u>84</u>
AS4	d3-phenol	<u> </u>

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

Continued From Above

SAMPLE ID 860195 Duplicate Analysis

FRACTION 05B

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-02-179

SAMPLE ID 860195 Duplicate Analysis

FRACTION 05B

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE SCDO2179C05
CONC. FACTOR 1

DATE EXTRACTED 02/28/86
DATE INJECTED 03/13/86

ANALYST INSTRUMENT

WJL 5100

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

Continued From Above

SAMPLE ID 860195 Duplicate Analysis

FRACTION 05B

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	41B	4-bromophenyl phenyl ether	ND	83	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
489 BS1	d5-nitrobenzene 82
750 BS2	2-fluorobiphenyl 86
1325 BS3	d14-terphenyl 118
BS4	d10-biphenyl

4 063

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 + = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute high concentrations.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-179

Continued From Above

SAMPLE ID 860195 Duplicate Analysis

FRACTION 05B

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

3 = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CCRC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-02-179

SAMPLE ID 860195 Duplicate Analysis

FRACTION 05B

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

DATA FILE 5CDO2179C05
CONC. FACTOR

DATE EXTRACTED 02/28/86
DATE INJECTED 03/13/86

ANALYST WJL

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

Continued From Above

SAMPLE ID 860195 Duplicate Analysis

FRACTION Q5B

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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RECEIVED: 02/27/86

Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

SAMPLE ID 860196 Matrix Spike BNA

FRACTION 05A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 5CM02179C05

DATE EXTRACTED 02/28/86

ANALYST

MM

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/12/86

INSTRUMENT

5100

COMPOUNDS DETECTED 11

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	<u>737</u>	21A	2, 4, 6-trichlorophenol	7A	<u>876</u>	58A	4-nitrophenol
							<u>69</u>
8A	<u>674</u>	22A	4-chloro-3-methylphenol	5A	<u>861</u>	59A	2, 4-dinitrophenol
							<u>64</u>
1A	<u>392</u>	24A	2-chlorophenol	4A	<u>946</u>	60A	2-methyl-4, 6-dinitrophenol
							<u>106</u>
2A	<u>559</u>	31A	2, 4-dichlorophenol	9A	<u>1055</u>	64A	pentachlorophenol
							<u>105</u>
3A	<u>544</u>	34A	2, 4-dimethylphenol	10A	<u>377</u>	65A	phenol
							<u>69</u>
6A	535	57A	2-nitrophenol				
							62

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
375 AS1	d5-phenol	65
273 AS2	2-fluorophenol	52
970 AS3	2, 4, 6-tribromophenol	110
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in % unless otherwise specified.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

Continued From Above

SAMPLE ID 860196 Matrix Spike BNA

FRACTION 05A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

SAMPLE ID 860196 Matrix Spike BNA

FRACTION 05A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE 5CM02179C05		DATE EXTRACTED 02/28/86		ANALYST		MM		VERIFIED BY LAK	
CONC. FACTOR 1		DATE INJECTED 03/12/86		INSTRUMENT		5100		COMPOUNDS DETECTED 46	
NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT		
1B	851	1B	acenaphthene	109	41B	156	61B	N-nitrosodimethylamine	60
4B		5B	benzidine	NA	43B	952	62B	N-nitrosodiphenylamine	272
46B	591	8B	1,2,4-trichlorobenzene	112	42B	473	63B	N-nitrosodi-n-propylamine	79
33B	1028	9B	hexachlorobenzene	132	13B	1505	66B	bis(2-ethylhexyl)phthalate	97
36B	490	12B	hexachloroethane	81	15B	1408	67B	butyl benzyl phthalate	44
11B	335	18B	bis(2-chloroethyl)ether	82	26B	1178	68B	di-butyl phthalate	100
16B	762	20B	2-chloronaphthalene	110	29B	1597	69B	di-n-octyl phthalate	67
20B	440	25B	1,2-dichlorobenzene	87	24B	927	70B	diethyl phthalate	75
21B	409	26B	1,3-dichlorobenzene	81	25B	818	71B	dimethyl phthalate	31
22B	416	27B	1,4-dichlorobenzene	80	5B	1484	72B	benzo(a)anthracene A	94
23B	1483	28B	3,3'-dichlorobenzidine	2000	6B	1698	73B	benzo(a)pyrene	80
27B	835	35B	2,4-dinitrotoluene	114	7B	1648	74B	benzo(b)fluoranthene *	80
28B	826	36B	2,6-dinitrotoluene	105	9B	1652	75B	benzo(k)fluoranthene *	85
29B		37B	1,2-diphenylhydrazine	NA	18B	1490	76B	chrysene A	105
31B	1262	39B	fluoranthene	109	2B	825	77B	acenaphthylene	102
17B	933	40B	4-chlorophenyl phenyl ether	117	3B	1084	78B	anthracene B	116

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REPORT

Results by Sample

LAB # 86-02-179
Continued From Above

SAMPLE ID 860196 Matrix Spike BNA

FRACTION 05A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	<u>1007</u>	41B	4-bromophenyl phenyl ether	<u>144</u>	8B	<u>1979</u>	79B	benzo(ghi)perylene	<u>94</u>
12B	<u>456</u>	42B	bis(2-chloroisopropyl)ether	<u>74</u>	32B	<u>931</u>	80B	fluorene	<u>107</u>
10B	<u>557</u>	43B	bis(2-chloroethoxy)methane	<u>89</u>	44B	<u>1077</u>	81B	phenanthrene B	<u>105</u>
34B	<u>618</u>	52B	hexachlorobutadiene	<u>124</u>	19B	<u>1921</u>	82B	dibenzo(a,h)anthracene	<u>90</u>
35B	<u>726</u>	53B	hexachlorocyclopentadiene	<u>1</u>	37B	<u>1918</u>	83B	indeno(1,2,3-cd)pyrene	<u>100</u>
38B	<u>524</u>	54B	isophorone	<u>96</u>	45B	<u>1295</u>	84B	pyrene	<u>100</u>
39B	<u>599</u>	55B	naphthalene	<u>88</u>					
40B	<u>491</u>	56B	nitrobenzene	<u>81</u>					

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>498</u> BS1	d5-nitrobenzene <u>106</u>
<u>749</u> BS2	2-fluorobiphenyl <u>118</u>
<u>1325</u> BS3	d14-terphenyl <u>126</u>
BS4	d10-biphenyl

4 070

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in % unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A benzo(a)anthracene and chrysene co-elute high concentrations.

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REPORT

Results by Sample

LAB # 86-02-179

Continued From Above

SAMPLE ID 860196 Matrix Spike BNA

FRACTION 05A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

SAMPLE ID Reagent Blank 625

FRACTION 05C

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE SCB02144C04
CONC. FACTOR 1

DATE EXTRACTED 02/28/86
DATE INJECTED 03/11/86

ANALYST
INSTRUMENT

MM
5100
COMPOUNDS DETECTED 0
VERIFIED BY LAK

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
<u>374</u> AS1	d5-phenol	<u>61</u>
<u>269</u> AS2	2-fluorophenol	<u>59</u>
<u>969</u> AS3	2,4,6-tribromophenol	<u>98</u>
AS4	d3-phenol	<u> </u>

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram

All results reported in ug/l unless otherwise specified.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

Continued From Above

SAMPLE ID Reagent Blank 625

FRACTION 05C

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category _____

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

SAMPLE ID Reagent Blank 625

FRACTION 05C

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE 5C802144C04

DATE EXTRACTED 02/08/86

ANALYST

MM

VERIFIED BY LAK

CORC FACTOR 1

DATE INJECTED 03/11/86

INSTRUMENT

5100

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
4B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
9B		hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
12B		hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
18B		bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
24B		2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
30B		1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
36B		1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
42B		1,4 dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
48B		1,2,3-trichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
54B		4 dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
60B		1,2,4-trinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
66B		1,2,5-trinitrobenzene	ND	18B	76B	chrysene A	ND
72B		1,2,6-trinitrobenzene	ND	2B	77B	acenaphthylene	ND
78B		1,2,3-trinitrobenzene	ND	3B	78B	anthracene B	ND

~~NO-R190~~ 444

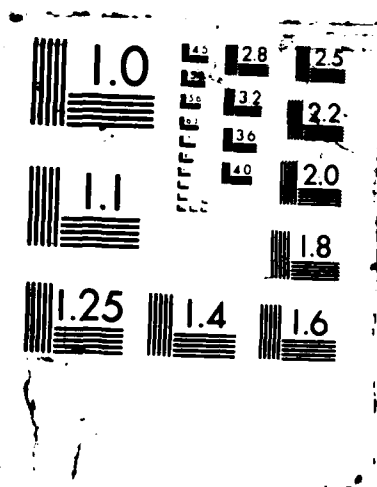
INSTALLATION RESTORATION PROGRAM PHASE 2
CONFIRMATION/QUANTIFICATION STAG. (U) RADIAN CORP
AUSTIN TX DEC 87 F33615-83-D-4001

27

UNCLASSIFIED

F/G 24/7

ML



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RECEIVED: 02/27/86

Analytical Serv

REPORT

LAB # 86-02-179

Results by Sample

Continued From Above

 SAMPLE ID Reagent Blank 625

 FRACTION 05C

 TEST CODE M625 B

 NAME Method 625 Base/Neutrals

 Date & Time Collected not specified

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>487</u> BS1	d5-nitrobenzene <u>80</u>
<u>749</u> BS2	2-fluorobiphenyl <u>96</u>
<u>1324</u> BS3	d14-terphenyl <u>120</u>
BS4	d10-biphenyl

4 075

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = enzo(a)anthracene and chrysene co-elute high concentrations.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-179

Continued From Above

SAMPLE ID Reagent Blank 625

FRACTION 05C

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

LAB # 86-02-179

Results by Sample

SAMPLE ID Reagent Blank 625

FRACTION 05C

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

DATA FILE 5CBO2144C04

DATE EXTRACTED 02/28/86

ANALYST

VERIFIED BY LAK

CONC. FACTOR

DATE INJECTED 03/11/86

MM

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P		aldrin	2P	102P	alpha BHC	ND
10P	90P		dieldrin	3P	103P	beta BHC	ND
6P	91P		chlordane	4P	104P	gamma BHC	ND
7P	92P		4,4'-DDT	5P	105P	delta BHC	ND
8P	93P		4,4'-DDE	18P	106P	PCB-1242	ND
9P	94P		4,4'-DDD	19P	107P	PCB-1254	ND
11P	95P		alpha endosulfan	20P	108P	PCB-1221	ND
12P	96P		beta endosulfan	21P	109P	PCB-1232	ND
14P	97P		endosulfan sulfate	22P	110P	PCB-1248	ND
14P	98P		endrin	23P	111P	PCB-1260	ND
15P	99P		endrin aldehyde	24P	112P	PCB-1016	ND
16P	100P		heptachlor	25P	113P	toxaphene	ND
17P	101P		heptachlor epoxide				

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

Continued From Above

SAMPLE ID Reagent Blank 625

FRACTION 05C

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv

REPORT

LAB # 86-02-179

Results by Sample

SAMPLE ID Method Spike BNA

FRACTION 06A TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 5CM03032C03

DATE EXTRACTED 03/10/86

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/27/86

ANALYST

INSTRUMENT

COMPOUNDS DETECTED 11

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	717	21A	2,4,6-trichlorophenol	100	7A	85B	58A
							4-nitrophenol
							79
8A	656	22A	4-chloro-3-methylphenol	90	5A	841	59A
							2,4-dinitrophenol
							39
1A	374	24A	2-chlorophenol	73	4A	924	60A
							2-methyl-4,6-dinitrophenol
							90
2A	551	31A	2,4-dichlorophenol	95	9A	1030	64A
							pentachlorophenol
							99
3A	527	34A	2,4-dimethylphenol	49	10A	361	65A
							phenol
							62
6A	516	57A	2-nitrophenol	97			

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
350	AS1	d5-phenol
		57
258	AS2	2-fluorophenol
		55
946	AS3	2,4,6-tribromophenol
		94
AS4		d3-phenol

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in % unless otherwise specified.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

Continued From Above

SAMPLE ID Method Spike BNA

FRACTION 06A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

SAMPLE ID Method Spike BNA

FRACTION 06A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE 5CK03052C05

DATE EXTRACTED 03/10/86

ANALYST

WJL

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/27/86

INSTRUMENT

5100

COMPOUNDS DETECTED 45

NPDES	SCAN	EPA	COMPOUND	RESULT	NPDES	SCAN	EPA	COMPOUND	RESULT
1B	831	1B	acenaphthene	81	41B	153	61B	N-nitrosodimethylamine	25
4B		5B	benzidine	ND	43B	929	62B	N-nitrosodiphenylamine	97
46B	552	8B	1,2,4-trichlorobenzene	83	42B	455	63B	N-nitrosodi-n-propylamine	67
33B	1003	9B	hexachlorobenzene	116	13B	1477	66B	bis(2-ethylhexyl)phthalate	73
36B	462	12B	hexachloroethane	60	15B	1381	67B	butyl benzyl phthalate	35
11B	369	18B	bis(2-chloroethyl)ether	58	26B	1153	68B	di-butyl phthalate	83
16B	741	20B	2-chloronaphthalene	84	29B	1568	69B	di-n-octyl phthalate	82
20B	422	25B	1,2-dichlorobenzene	66	24B	904	70B	diethyl phthalate	77
21B	392	26B	1,3-dichlorobenzene	67	25B	796	71B	dimethyl phthalate	48
22B	398	27B	1,4-dichlorobenzene	64	5B	1454	72B	benzo(a)anthracene A	90
23B	1454	28B	3,3'-dichlorobenzidine	125	6B	1661	73B	benzo(a)pyrene	89
27B	863	35B	2,4-dinitrotoluene	87	7B	1615	74B	benzo(b)fluoranthene *	89
28B	804	36B	2,6-dinitrotoluene	86	9B	1619	75B	benzo(k)fluoranthene *	101
29B		37B	1,2-diphenylhydrazine	NA	18B	1460	76B	chrysene A	84
31B	1234	39B	fluoranthene	97	2B	803	77B	acenaphthylene	84
17B	910	40B	4-chlorophenyl phenyl ether	97	3B	1059	78B	anthracene B	97

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-179

Continued From Above

SAMPLE ID Method Spike BNA

FRACTION 06A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

148	<u>583</u>	418	4-bromophenyl phenyl ether	<u>107</u>	88	<u>1918</u>	798	benzo(ghi)perylene	<u>90</u>
128	<u>439</u>	428	bis(2-chloroisopropyl)ether	<u>61</u>	328	<u>907</u>	808	fluorene	<u>83</u>
108	<u>539</u>	438	bis(2-chloroethoxy)methane	<u>77</u>	448	<u>1051</u>	818	phenanthrene B	<u>89</u>
348		528	hexachlorobutadiene	<u>102</u>	198	<u>1863</u>	828	dibenzo(a,h)anthracene	<u>97</u>
358	<u>599</u>	538	hexachlorocyclopentadiene	<u>102</u>	378	<u>1863</u>	838	indeno(1,2,3-cd)pyrene	<u>97</u>
388	<u>505</u>	548	isophorone	<u>79</u>	458	<u>1267</u>	848	pyrene	<u>70</u>
398	<u>559</u>	558	naphthalene	<u>76</u>					
408	<u>473</u>	568	nitrobenzene	<u>72</u>					

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>470</u> BS1	d5-nitrobenzene <u>79</u>
<u>729</u> BS2	2-fluorobiphenyl <u>73</u>
<u>1297</u> BS3	d14-terphenyl <u>44</u>
BS4	d10-biphenyl

4 082

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in % unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute high concentrations.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

Continued From Above

SAMPLE ID METHOD Spike BNA

FRACTION 06A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.

SL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

NonReported Work

LAB # 86-02-179

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B : DUP_NS
02B : DUP_NS
03B : DUP_NS
04B : DUP_NS

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Analytical Serv

REPORT

LAB # 86-02-197

REPORT Radian

TO B1 4

Austin

ATTEN Larry French

CLIENT PLANT4

COMPANY Plant 4

FACILITY Carswell AFB (Gen Dynamics)

SAMPLES 6

WORK ID groundwater

TAKEN WJ,FS

TRANS Fed Ex

TYPE

P O # 212-027-27-40

INVOICE under separate cover

PREPARED Radian Analytical Services

BY 8501 MoPac Blvd

P O Box 9948

Austin, Texas 78766

ATTEN

PHONE (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Carol Smith

Second column confirmation for EPA 602: -01, -03, -05.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit
Potential error for such low values ranges between
50 and 100%

@ Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

SAMPLE IDENTIFICATION

01 860201
02 860202
03 860203
04 860204
05 860205
06 860206

Analytical Serv TEST CODES and NAMES used on this report

AG E Silver, ICPEs
AS GA Arsenic, low level
BA E Barium, ICPEs
CD E Cadmium, ICPEs
CR E Chromium, ICPEs
DG3020 Digestion by Method 3020
DG6010 Digestion by Method 6010
GC 601 EPA Method 601/GC
GC 602 EPA Method 602/GC
HG CA Mercury, Cold Vapor
PB GA Lead, low level
SE GA Selenium, low level

PAGE 2
 RECEIVED: 02/28/86
 Analytical Serv
 REPORT
 RESULTS BY TEST
 LAB # 86-02-197

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
AG E ug/ml	0.027	0.005*	0.009*	0.011	0.011
AS GA ug/ml	0.13	0.005*	0.006*	0.040	0.062
BA E ug/ml	0.77	0.071	0.090	0.45	0.73
CD E ug/ml	0.003*	<.002	<.002	<.002	<.002
CR E ug/ml	0.14	0.055	0.065	0.053	0.088
DC3020 date complete	03/12/86	03/12/86	03/12/86	03/12/86	03/12/86
DC6010 date complete	03/18/86	03/18/86	03/18/86	03/18/86	03/18/86
HG CA ug/ml	<.0002	<.0002	<.0002	<.0002	<.0002
PB GA ug/ml	0.250	0.010	0.030	0.022	0.024
SE GA ug/ml	<.003	<.0030	<.003	<.003	<.003

TEST CODE default units	Sample 06 (entered units)
AG E ug/ml	0.020
AS GA ug/ml	0.012*

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Analytical Serv REPORT
RESULTS BY TEST

LAB # 86-02-197
CONTINUED FROM ABOVE

BA E	0.039
ug/ml	
CD E	<.002
ug/ml	
CR E	0.014*
ug/ml	
DC3020	03/12/86
date complete	
DG6010	03/18/86
date complete	
HG CA	<.0002
ug/ml	
PB GA	0.004*
ug/ml	
SE GA	<.003
ug/ml	

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Analytical Serv
Results by Sample

REPORT

LAB # 86-02-197

SAMPLE ID 860201

FRACTION 01A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/27/86

Category

DATA FILE _____ G
CONC FACTOR _____ 1

DATE INJECTED 02/28/86

ANALYST _____
INSTRUMENT _____ 9

VERIFIED BY MCL
COMPOUNDS DETECTED _____ 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
_____	Chloromethane	ND	_____ 2	Trichloroethene	0.16
_____	Bromomethane	ND	_____	Dibromochloromethane *	ND
_____	Vinyl Chloride	ND	_____	1,1,2-Trichloroethane *	ND
_____	Chloroethane	ND	_____	cis-1,3-Dichloropropene *	ND
_____	Methylene Chloride	ND	_____	2-Chloroethylvinyl Ether	ND
_____	Trichlorofluoromethane	ND	_____	Bromoform	ND
_____	1,1-Dichloroethene	ND	_____	1,1,2,2-Tetrachloroethane #	ND
_____	1,1-Dichloroethane	ND	_____	Tetrachloroethylene #	ND
_____ 1	trans-1,2-Dichloroethene	8.92	_____	Chlorobenzene	ND
_____	Chloroform	ND	_____	1,3-Dichlorobenzene	ND
_____	1,2-Dichloroethane	ND	_____	1,2-Dichlorobenzene	ND
_____	1,1,1-Trichloroethane	ND	_____	1,4-Dichlorobenzene	ND
_____	Carbon Tetrachloride	ND			
_____	Bromodichloromethane	ND			
_____	1,2-Dichloropropane	ND			
_____	trans-1,3-Dichloropropene	ND			

RADIAN
CORPORATION

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RECEIVED: 02/28/86
SAMPLE ID 860201

Analytical Serv
Results by Sample

REPORT
LAB # 86-02-197
Continued From Above

FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/27/86 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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SAMPLE ID 860201
Analytical Serv
Results by Sample
REPORT
LAB # 86-02-197
FRACTION Q1C
TEST CODE GC 602
NAME EPA Method 602/GC
Date & Time Collected 02/27/86
Category

DATA FILE _____ D
CONC. FACTOR _____ 1
DATE INJECTED 02/28/86
ANALYST _____ MCL
INSTRUMENT _____ d
VERIFIED BY MCL
COMPOUNDS DETECTED _____ 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
---	Benzene	ND ;	---	1,4-Dichlorobenzene	ND
1	Toluene	13.3 ;	---	1,3-Dichlorobenzene	ND
---	Ethyl Benzene	ND ;	---	1,2-Dichlorobenzene	ND
---	Chlorobenzene	ND ;			

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.

All results reported in _____ ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-02-197

SAMPLE ID 860202

FRACTION 02A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/27/86

Category

DATA FILE _____ G DATE INJECTED 02/28/86 ANALYST _____ RP VERIFIED BY MCL
CONC. FACTOR 1 INSTRUMENT 9 COMPOUNDS DETECTED 4

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Chloromethane	ND	3	Trichloroethene	0.31
—	Bromomethane	ND	—	Dibromochloromethane *	ND
—	Vinyl Chloride	ND	—	1,1,2-Trichloroethane *	ND
—	Chloroethane	ND	—	cis-1,3-Dichloropropene *	ND
1	Methylene Chloride	0.33	—	2-Chloroethylvinyl Ether	ND
—	Trichlorofluoromethane	ND	—	Bromoform	ND
—	1,1-Dichloroethene	ND	—	1,1,2,2-Tetrachloroethane #	ND
—	1,1-Dichloroethane	ND	4	Tetrachloroethylene #	0.08
2	trans-1,2-Dichloroethene	0.74	—	Chlorobenzene	ND
—	Chloroform	ND	—	1,3-Dichlorobenzene	ND
—	1,2-Dichloroethane	ND	—	1,2-Dichlorobenzene	ND
—	1,1,1-Trichloroethane	ND	—	1,4-Dichlorobenzene	ND
—	Carbon Tetrachloride	ND	—		
—	Bromodichloromethane	ND	—		
—	1,2-Dichloropropane	ND	—		
—	trans-1,3-Dichloropropene	ND	—		

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RECEIVED: 02/28/86

Analytical Serv

REPORT

Results by Sample

LAB # 86-02-197

Continued From Above

SAMPLE ID 860202

FRACTION 02A

TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/27/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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 SAMPLE ID 860202
 Analytical Serv REPORT
 Results by Sample
 FRACTION 02C TEST CODE GC 602 NAME EPA Method 602/GC
 Date & Time Collected 02/27/86 Category

LAB # 86-02-197

DATA FILE _____ D DATE INJECTED 02/28/86 ANALYST _____ RP VERIFIED BY MCL
 CONC. FACTOR _____ 1 INSTRUMENT _____ d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Benzene	ND ;	—	1,4-Dichlorobenzene	ND
—	Toluene	ND ;	—	1,3-Dichlorobenzene	ND
—	Ethyl Benzene	ND ;	—	1,2-Dichlorobenzene	ND
—	Chlorobenzene	ND ;			

NOTES AND DEFINITIONS FOR THIS REPORT
 SCAN = scan number or retention time on chromatogram
 All results reported in _____ ug/L unless otherwise specified.
 ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-02-197

SAMPLE ID 860203

FRACTION 03A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/27/86

Category

DATA FILE _____ G
CONC. FACTOR _____ 1

DATE INJECTED 02/28/86

ANALYST _____
INSTRUMENT _____

RP _____

VERIFIED BY MCL
COMPOUNDS DETECTED _____ 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
_____	Chloromethane	ND	_____	Trichloroethene	ND
_____	Bromomethane	ND	_____	Dibromochloromethane *	ND
_____	Vinyl Chloride	ND	_____	1,1,2-Trichloroethane *	ND
_____	Chloroethane	ND	_____	cis-1,3-Dichloropropene *	ND
1	Methylene Chloride	0.33	_____	2-Chloroethylvinyl Ether	ND
_____	Trichlorofluoromethane	ND	_____	Bromoform	ND
_____	1,1-Dichloroethene	ND	_____	1,1,2,2-Tetrachloroethane #	ND
_____	1,1-Dichloroethane	ND	2	Tetrachloroethylene #	0.07
_____	trans-1,2-Dichloroethene	ND	_____	Chlorobenzene	ND
_____	Chloroform	ND	_____	1,3-Dichlorobenzene	ND
_____	1,2-Dichloroethane	ND	_____	1,2-Dichlorobenzene	ND
_____	1,1,1-Trichloroethane	ND	_____	1,4-Dichlorobenzene	ND
_____	Carbon Tetrachloride	ND			
_____	Bromodichloromethane	ND			
_____	1,2-Dichloropropane	ND			
_____	trans-1,3-Dichloropropene	ND			

RADIAL
CORPORATION

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-197

Continued From Above

SAMPLE ID 860203

FRACTION 03A

TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/27/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified

ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79)

*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-02-197

SAMPLE ID 860203

FRACTION 03C

TEST CODE GC 602

NAME EPA Method 602/GC

Date & Time Collected 02/27/86

Category

DATA FILE _____ D _____ ANALYST _____ MCL _____ VERIFIED BY MCL _____
CONC FACTOR _____ 1 _____ INSTRUMENT _____ d _____ COMPOUNDS DETECTED _____ 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
_____	Benzene	ND ;	_____	1,4-Dichlorobenzene	ND
1	Toluene	54.9 ;	_____	1,3-Dichlorobenzene	ND
_____	Ethyl Benzene	ND ;	_____	1,2-Dichlorobenzene	ND
_____	Chlorobenzene	ND ;			

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-02-197

SAMPLE ID 860204

FRACTION 04A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/27/86

Category

DATA FILE _____ G _____ ANALYST _____ RP _____ VERIFIED BY MCL
CONC. FACTOR _____ 1 _____ INSTRUMENT _____ g _____ COMPOUNDS DETECTED _____

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
---	Chloromethane	ND	---	Trichloroethene	ND
---	Bromomethane	ND	---	Dibromochloromethane *	ND
---	Vinyl Chloride	ND	---	1,1,2-Trichloroethane *	ND
---	Chloroethane	ND	---	cis-1,3-Dichloropropene *	ND
---	Methylene Chloride	ND	---	2-Chloroethylvinyl Ether	ND
---	Trichlorofluoromethane	ND	---	Bromoform	ND
---	1,1-Dichloroethene	ND	---	1,1,2,2-Tetrachloroethane #	ND
---	1,1-Dichloroethane	ND	---	Tetrachloroethylene #	ND
---	trans-1,2-Dichloroethene	ND	---	Chlorobenzene	ND
---	Chloroform	ND	---	1,3-Dichlorobenzene	ND
---	1,2-Dichloroethane	ND	---	1,2-Dichlorobenzene	ND
---	1,1,1-Trichloroethane	ND	---	1,4-Dichlorobenzene	ND
---	Carbon Tetrachloride	ND			
---	Bromodichloromethane	ND			
---	1,2-Dichloropropane	ND			
---	trans-1,3-Dichloropropene	ND			

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SAMPLE ID 860204

Analytical Serv
Results by Sample

LAB # 86-02-197
Continued From Above

FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/27/86 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv
Results by Sample

LAB # 86-02-197

SAMPLE ID 860204

FRACTION 04C TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/27/86 Category

DATA FILE _____ D _____
CONC. FACTOR _____ 1
DATE INJECTED 02/28/86 ANALYST _____ RP _____ VERIFIED BY MCL
INSTRUMENT _____ d _____ COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
_____	Benzene	ND ;	_____	1,4-Dichlorobenzene	ND
1	Toluene	1.46 ;	_____	1,3-Dichlorobenzene	ND
_____	Ethyl Benzene	ND ;	_____	1,2-Dichlorobenzene	ND
_____	Chlorobenzene	ND ;			

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram

All results reported in _____ ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-02-197

SAMPLE ID 860205

FRACTION 05A
Date & Time Collected 02/27/86

TEST CODE GC 601 NAME EPA Method 601/GC
Category

DATA FILE	CONC	DATE INJECTED	ANALYST	RP	VERIFIED BY
1	1	02/28/86	INSTRUMENT	g	COMPOUNDS DETECTED
SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
---	Chloromethane	ND	---	Trichloroethene	ND
---	Bromomethane	ND	---	Dibromochloromethane *	ND
---	Vinyl Chloride	ND	---	1,1,2-Trichloroethane *	ND
---	Chloroethane	ND	---	cis-1,3-Dichloropropene *	ND
---	Methylene Chloride	ND	---	2-Chloroethylvinyl Ether	ND
---	Trichlorofluoromethane	ND	---	Bromoform	ND
---	1,1-Dichloroethene	ND	---	1,1,2,2-Tetrachloroethane #	ND
---	1,1-Dichloroethane	ND	---	Tetrachloroethylene #	ND
---	trans-1,2-Dichloroethene	ND	---	Chlorobenzene	ND
---	Chloroform	ND	---	1,3-Dichlorobenzene	ND
---	1,2-Dichloroethane	ND	---	1,2-Dichlorobenzene	ND
---	1,1,1-Trichloroethane	ND	---	1,4-Dichlorobenzene	ND
---	Carbon Tetrachloride	ND			
---	Bromodichloromethane	ND			
---	1,2-Dichloropropane	ND			
---	trans-1,3-Dichloropropene	ND			

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SAMPLE ID 860205

Analytical Serv
Results by Sample

LAB # 86-02-197
Continued From Above

FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/27/86 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-02-197

SAMPLE ID 860205

FRACTION 05C TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/27/86 Category

DATA FILE _____ D _____ DATE INJECTED 02/28/86 ANALYST _____ MCL _____ VERIFIED BY MCL
CONC. FACTOR _____ 1 _____ INSTRUMENT _____ d _____ COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Benzene	ND :	—	1,4-Dichlorobenzene	ND
—1	Toluene	125 :	—	1,3-Dichlorobenzene	ND
—	Ethyl Benzene	ND :	—	1,2-Dichlorobenzene	ND
—	Chlorobenzene	ND :	—		

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in _____ ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Results by Sample

REPORT

LAB # 86-02-197

SAMPLE ID 860206

FRACTION 06A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/27/86

Category

DATA FILE _____
CONC. FACTOR _____

DATE INJECTED 02/28/86

ANALYST _____
INSTRUMENT _____

VERIFIED BY MCL _____
COMPOUNDS DETECTED _____

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
_____	Chloromethane	ND	_____	Trichloroethene	ND
_____	Bromomethane	ND	_____	Dibromochloromethane *	ND
_____	Vinyl Chloride	ND	_____	1,1,2-Trichloroethane *	ND
_____	Chloroethane	ND	_____	cis-1,3-Dichloropropene *	ND
_____	Methylene Chloride	ND	_____	2-Chloroethylvinyl Ether	ND
_____	Trichlorofluoromethane	ND	_____	Bromoform	ND
_____	1,1-Dichloroethene	ND	_____	1,1,2,2-Tetrachloroethane #	ND
_____	1,1-Dichloroethane	ND	_____	Tetrachloroethylene #	ND
_____	trans-1,2-Dichloroethene	ND	_____	Chlorobenzene	ND
_____	Chloroform	ND	_____	1,3-Dichlorobenzene	ND
_____	1,2-Dichloroethane	ND	_____	1,2-Dichlorobenzene	ND
_____	1,1,1-Trichloroethane	ND	_____	1,4-Dichlorobenzene	ND
_____	Carbon Tetrachloride	ND			
_____	Bromodichloromethane	ND			
_____	1,2-Dichloropropane	ND			
_____	trans-1,3-Dichloropropene	ND			

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CORPORATION

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-197

Continued From Above

SAMPLE ID 860206

FRACTION 06A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/27/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).

*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-02-197

SAMPLE ID 860206

FRACTION 06C

TEST CODE GC 602

NAME EPA Method 602/GC

Date & Time Collected 02/27/86

Category

DATA FILE _____ D
CONC. FACTOR _____ 1

DATE INJECTED 02/28/86

ANALYST _____
INSTRUMENT _____

VERIFIED BY MCL _____
COMPOUNDS DETECTED _____ 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
_____	Benzene	ND ;	_____	1, 4-Dichlorobenzene	ND
_____	Toluene	ND ;	_____	1, 3-Dichlorobenzene	ND
_____	Ethyl Benzene	ND ;	_____	1, 2-Dichlorobenzene	ND
_____	Chlorobenzene	ND ;			

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in _____ ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv

REPORT

NonReported Work

LAB # 86-02-197

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	:	DUP601	01D	:	DUP602
02B	:	DUP601	02D	:	DUP602
03B	:	DUP601	03D	:	DUP602
04B	:	DUP601	04D	:	DUP602
05B	:	DUP601	05D	:	DUP602
06B	:	DUP601	06D	:	DUP602

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Analytical Serv

REPORT

LAB # 86-02-198

03/31/86 14:29:53

REPORT Radian Corporation
TO Larry French
Austin, Texas

PREPARED Radian Analytical Services

BY 8501 MoPac Blvd.

P.O. Box 9948

Austin, Texas 78766

ATTEN

ATTEN

PHONE (512) 454-4797

CONTACT FRENCH

CLIENT PLANT 4
COMPANY General Dynamics
FACILITY QEHL Plant 4, Bldg 4
Austin, Texas

SAMPLES 7

WORK ID Plant 4 Ft. Worth, TX
TAKEN 2/27/86
TRANS Fed Ex 343914384
TYPE H2O
P.O. # 212-027-27-40
INVOICE under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit.
Potential error for such low values ranges between
50 and 100%.

@ Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

SAMPLE IDENTIFICATION

01 860201 H2O
02 860202 H2O
03 860203 H2O
04 860204 H2O
05 860205 H2O
06 860206 H2O
07 Reagent Blank

Analytical Serv TEST CODES and NAMES used on this report

EX 625 Extraction only - 625 BN/A
M625 A Method 625 Acid Compounds
M625 B Method 625 Base/Neutrals
MS 608 Pesticides & PCBs by GC/MS

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Analytical Serv REPORT
RESULTS BY TEST LAB # 86-02-198

TEST CODE	Sample 01	Sample 02	Sample 03	Sample 04	Sample 05
default units	(entered units)	(entered units)	(entered units)	(entered units)	(entered units)
EX 625	03/03/86	03/03/86	03/03/86	03/03/86	03/03/86
date complete					

TEST CODE	Sample 06	Sample 07
default units	(entered units)	(entered units)
EX 625	03/03/86	03/03/86
date complete		

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Analytical Serv

REPORT

LAB # 86-02-198

Results by Sample

SAMPLE ID 860201 H20

FRACTION 01A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/27/86

Category

DATA FILE 5CU02198C01
CONC. FACTOR 1

DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86

ANALYST WJL
INSTRUMENT 5100

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

4 109

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
370 AS1	d5-phenol	62
262 AS2	2-fluorophenol	68
970 AS3	2,4,6-tribromophenol	105
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-198

Continued From Above

SAMPLE ID 860201 H2O

FRACTION Q1A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/27/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-02-198

SAMPLE ID 860201 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

DATA FILE 5CU02198C01
CONC. FACTOR 1

DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86

ANALYST
INSTRUMENT

WJL
3100

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene R	ND

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-198

Continued From Above

SAMPLE ID 860201 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

148	418	4-bromophenyl phenyl ether	ND	88	798	benzo(ghi)perylene	ND
128	428	bis(2-chloroisopropyl)ether	ND	328	808	fluorene	ND
108	438	bis(2-chloroethoxy)methane	ND	448	818	phenanthrene B	ND
348	528	hexachlorobutadiene	ND	198	828	dibenzo(a,h)anthracene	ND
358	538	hexachlorocyclopentadiene	ND	378	838	indeno(1,2,3-cd)pyrene	ND
388	548	isophorone	ND	458	848	pyrene	ND
398	558	naphthalene	ND				
408	568	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
4 485 BS1	d5-nitrobenzene 38
112 749 BS2	2-fluorobiphenyl 36
1325 BS3	d14-terphenyl 15
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A enzo(a)anthracene and chrysene co-elute high concentrations.

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CORPORATION

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198
Continued From Above

SAMPLE ID 860201 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category _____

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

SAMPLE ID 860201 H20

FRACTION 01A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/27/86

Category

DATA FILE 5CU02198C01
CONC. FACTOR

DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86

ANALYST WJL

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-198

Continued From Above

SAMPLE ID 860201 H20

FRACTION 01A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/27/86

Category _____

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

SAMPLE ID 860202 H20

FRACTION 02A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 02/27/86

Category

DATA FILE 5CU02198C02

DATE EXTRACTED 03/03/86

ANALYST

WJL

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/13/86

INSTRUMENT

5100

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
376 AS1	d5-phenol	76
272 AS2	2-fluorophenol	85
970 AS3	2,4,6-tribromophenol	130
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID 860202 H2O

FRACTION 02A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/27/86

Category

NO = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank, background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-02-198

SAMPLE ID 860202 H20

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

DATA FILE	5CU02198C02	DATE EXTRACTED	03/03/86	ANALYST	WJL	VERIFIED BY	LAK
CONC. FACTOR	1	DATE INJECTED	03/13/86	INSTRUMENT	510Q	COMPOUNDS DETECTED	Q
NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID 860202 H20

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
489 BS1	d5-nitrobenzene 36
749 BS2	2-fluorobiphenyl 36
1325 BS3	d14-terphenyl 19
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 + = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A benzo(a)anthracene and chrysene co-elute high concentrations.

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Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID 860202 H20

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Results by Sample

REPORT

LAB # 86-02-198

SAMPLE ID 860202 H20

FRACTION 02A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/27/86

Category

DATA FILE 5CU02198C02
CONC. FACTOR

DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86

ANALYST WJL

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Results by Sample

REPORT

LAB # 86-02-198

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SAMPLE ID 860202 H20

FRACTION 02A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/27/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Results by Sample

REPORT

LAB # 86-02-198

SAMPLE ID 860203 H20

FRACTION 03A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/27/86

Category

DATA FILE 3CU02198C03
CONC. FACTOR 1

DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86

ANALYST
INSTRUMENT 3100

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

4 123

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
375 AS1	d3-phenol	69
272 AS2	2-fluorophenol	75
970 AS3	2,4,6-tribromophenol	125
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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Results by Sample

LAB # 86-02-198

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SAMPLE ID 860203 H20

FRACTION 03A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/27/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CCNC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Results by Sample

LAB # 86-02-198

SAMPLE ID 860203 H20

FRACTION 03A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

DATA FILE 3CU02198C03

DATE EXTRACTED 03/03/86

ANALYST

MM

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/13/86

INSTRUMENT

5100

COMPOUNDS DETECTED 1

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	1 BL
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene A	ND

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Results by Sample

REPORT

LAB # 86-02-198

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SAMPLE ID 860203 H20

FRACTION 03A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
489 BS1	d5-nitrobenzene 44
750 BS2	2-fluorobiphenyl 49
1326 BS3	d14-terphenyl 21
BS4	d10-biphenyl

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NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 + = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A benzo(a)anthracene and chrysene co-elute high concentrations.

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Results by Sample

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SAMPLE ID 860203 H20

FRACTION 03A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Results by Sample

LAB # 86-02-198

SAMPLE ID 860203 H20

FRACTION 03A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/27/86

Category

DATA FILE 5CU02198C03
CONC. FACTOR

DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86

ANALYST WJL

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Results by Sample

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LAB # 86-02-198

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SAMPLE ID 860203 H20

FRACTION 03A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/27/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Results by Sample

REPORT

LAB # 86-02-198

SAMPLE ID 860204 H20

FRACTION 04A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 02/27/86

Category

DATA FILE 5CU02198C04

DATE EXTRACTED 02/02/86

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/13/86

ANALYST INSTRUMENT

MM 5100

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
376 AS1	d5-phenol	61
273 AS2	2-fluorophenol	71
972 AS3	2,4,6-tribromophenol	107
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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Results by Sample

REPORT

LAB # 86-02-198

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SAMPLE ID 860204 H20

FRACTION 04A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 02/27/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR. indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Results by Sample

LAB # 86-02-198

SAMPLE ID 860204 H20

FRACTION 04A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

DATA FILE SCU02198C04

DATE EXTRACTED 03/03/86

ANALYST

MM

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/13/86

INSTRUMENT

5100

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
111B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
132B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Results by Sample

REPORT

LAB # 86-02-198

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SAMPLE ID 860204 H20

FRACTION 04A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
490 BS1	d5-nitrobenzene 29
751 BS2	2-fluorobiphenyl 35
1326 BS3	d14-terphenyl 20
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A benzo(a)anthracene and chrysene co-elute high concentrations.

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Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID 860204 H20

FRACTION 04A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Results by Sample

REPORT

LAB # 86-02-198

SAMPLE ID 860204 H20

FRACTION 04A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/27/86

Category

DATA FILE SCU02198C04

DATE EXTRACTED 03/03/86

ANALYST

VERIFIED BY LAK

CONC. FACTOR

DATE INJECTED 03/13/86

MM

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID 860204 H20

FRACTION 04A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/27/86

Category _____

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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REPORT

LAB # 86-02-198

Results by Sample

SAMPLE ID 860205 H20

FRACTION 05A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/27/86

Category

DATA FILE 5CU02198C05
CONC. FACTOR 1

DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86

ANALYST
INSTRUMENT

VERIFIED BY LAK
COMPOUNDS DETECTED Q

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
375 AS1	d5-phenol	63
271 AS2	2-fluorophenol	76
971 AS3	2,4,6-tribromophenol	112
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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Results by Sample

REPORT

LAB # 86-02-198
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SAMPLE ID 860205 H20

FRACTION 05A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/27/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
SL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection
limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-02-198

SAMPLE ID 860205 H20

FRACTION 05A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

DATA FILE 5CUQ2198C03

DATE EXTRACTED 03/03/86

ANALYST

MM

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/13/86

INSTRUMENT

5100

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID 860205 H20

FRACTION 05A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>489</u> BS1	d5-nitrobenzene <u>62</u>
<u>749</u> BS2	2-fluorobiphenyl <u>66</u>
<u>1326</u> BS3	d14-terphenyl <u>38</u>
BS4	d10-biphenyl

4 140

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A enzo(a)anthracene and chrysene co-elute high concentrations.

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CORPORATION

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID 860205 H20

FRACTION 05A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

SAMPLE ID 860205 H20

FRACTION 05A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/27/86

Category

DATA FILE 5CU02198C05

DATE EXTRACTED 03/03/86

ANALYST MM

VERIFIED BY LAK

CONC. FACTOR

DATE INJECTED 03/13/86

MM

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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CORPORATION

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID 860205 H2U

FRACTION 05A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/27/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-02-198

SAMPLE ID 860206 H20

FRACTION 06A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/27/86

Category

DATA FILE 5CU0206C06
CONC. FACTOR 1

DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86

ANALYST
INSTRUMENT

MM
5100

VERIFIED BY LAK
COMPOUNDS DETECTED Q

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
4 1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
1 2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
4 3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
376 AS1	d5-phenol	55
274 AS2	2-fluorophenol	62
970 AS3	2,4,6-tribromophenol	102
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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CORPORATION

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REPORT

Results by Sample

LAB # 86-02-198

Continued From Above

SAMPLE ID 860206 H20

FRACTION 06A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/27/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

SAMPLE ID 860206 H20

FRACTION 06A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

DATA FILE 5CU02198C06

DATE EXTRACTED 03/03/86

ANALYST

MM

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/13/86

INSTRUMENT

3100

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene R	ND

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID 860206 H20

FRACTION 06A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

148	418	4-bromophenyl phenyl ether	ND	88	798	benzo(ghi)perylene	ND
128	428	bis(2-chloroisopropyl)ether	ND	328	808	fluorene	ND
108	438	bis(2-chloroethoxy)methane	ND	448	818	phenanthrene B	ND
348	528	hexachlorobutadiene	ND	198	828	dibenzo(a,h)anthracene	ND
358	538	hexachlorocyclopentadiene	ND	378	838	indeno(1,2,3-cd)pyrene	ND
388	548	isophorone	ND	458	848	pyrene	ND
398	558	naphthalene	ND				
408	568	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
4 489 BS1	d5-nitrobenzene 70
147 749 BS2	2-fluorobiphenyl 78
1326 BS3	d14-terphenyl 38
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A benzo(a)anthracene and chrysene co-elute high concentrations.

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CORPORATION

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID 860206 H20

FRACTION 06A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/27/86

Category

S = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-198

SAMPLE ID 860206 H20

FRACTION 06A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/27/86

Category

DATA FILE 5CU02198C06

DATE EXTRACTED 03/03/86

ANALYST MM

VERIFIED BY LAK

CONC. FACTOR

DATE INJECTED 03/13/86

MM

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID 860206 H20

FRACTION 06A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/27/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-198

SAMPLE ID Reagent Blank

FRACTION 07A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 5CB02198C0Z
CONC. FACTOR 1

DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86

ANALYST
INSTRUMENT 5100 MM

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
377 AS1	d5-phenol	65
274 AS2	2-fluorophenol	74
971 AS3	2,4,6-tribromophenol	100
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-02-198

Continued From Above

SAMPLE ID Reagent Blank

FRACTION 07A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

SL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

SAMPLE ID Reagent Blank

FRACTION 07A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE 3CB02198C0Z

DATE EXTRACTED 03/03/86

ANALYST

MM

VERIFIED BY LAK

CONC. FACTOR

DATE INJECTED 03/13/86

INSTRUMENT

5100

COMPOUNDS DETECTED 1

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	1
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene A	ND

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RECEIVED: 02/28/86

Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID Reagent Blank

FRACTION 07A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>490</u> BS1	d5-nitrobenzene <u>34</u>
<u>750</u> BS2	2-fluorobiphenyl <u>43</u>
<u>1327</u> BS3	d14-terphenyl <u>19</u>
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A [enzo(a)anthracene and chrysene co-elute] high concentrations.

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RECEIVED: 02/28/86

Analytical Serv

Results by Sample

REPORT

LAB # 86-02-198

Continued From Above

SAMPLE ID Reagent Blank

FRACTION 07A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.
SL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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RECEIVED: 02/28/86

Analytical Serv

Results by Sample

LAB # 86-02-198

SAMPLE ID Reagent Blank

FRACTION 07A

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

DATA FILE 5CB02198C07

DATE EXTRACTED 03/03/86

ANALYST MM

VERIFIED BY LAK

CONC. FACTOR

DATE INJECTED 03/13/86

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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CORPORATION

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RECEIVED: 02/28/86

Analytical Serv

REPORT

Results by Sample

LAB # 86-02-198

Continued From Above

SAMPLE ID Reagent Blank

FRACTION 07A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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RECEIVED: 02/28/86 NonReported Work

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

02B : DUP_NS
03B : DUP_NS
04B : DUP_NS
05B : DUP_NS
06B : DUP_NS

PAGE 1

RECEIVED: 03/03/86

Analytical Serv

REPORT

LAB # 86-03-002

03/11/86 11:27:48

REPORT Radian
TO BL 4
Austin
ATTEN Larry French
CLIENT PLANT 4
COMPANY Plant 4
FACILITY Carswell AFB (Gen. Dynamics)

PREPARED Radian Analytical Services
BY 8301 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN
PHONE (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

**Unknown compound eluting here.

Second column confirmation performed for EPA 601: -01, -04, -05/
for EPA 602: -04.

Footnotes and Comments

* Indicates a value less than 3 times the detection limit.
Potential error for such low values ranges between
50 and 100%.

@ Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

SAMPLE IDENTIFICATION

01 860172
02 860207
03 860208
04 860209
05 860210
06 860211
07 860212
08 tria blank

Analytical Serv TEST CODES and NAMES used on this report

QC 601 EPA Method 601/GC
QC 602 EPA Method 602/GC

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 Analytical Serv
 Results by Sample

LAB # 86-03-002

SAMPLE ID 860172
 FRACTION 01A
 TEST CODE GC 601
 NAME EPA Method 601/GC
 Date & Time Collected 02/28/86
 Category

DATA FILE 9
 CONC. FACTOR 1
 DATE INJECTED 03/04/86
 ANALYST
 INSTRUMENT 9
 VERIFIED BY MCL
 COMPOUNDS DETECTED 4

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	4	Trichloroethene	1.07
	Bromomethane	ND		Dibromochloromethane *	ND
1	Vinyl Chloride	0.64		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
2	Methylene Chloride	0.30		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
3	trans-1,2-Dichloroethene	11.1**		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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Results by Sample

REPORT

LAB # 86-03-002

Continued From Above

SAMPLE ID 860172

FRACTION 01A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/28/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).

*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.

#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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REPORT

Results by Sample

LAB # 86-03-002

FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/28/86

Category

DATA FILE _____ Q _____ DATE INJECTED 03/04/86

CONC. FACTOR _____ 1 _____ ANALYST _____ MCL _____ VERIFIED BY MCL _____
INSTRUMENT _____ g _____ COMPOUNDS DETECTED _____ g

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
_____	Chloromethane	ND	_____	Trichloroethene	ND
_____	Bromomethane	ND	_____	Dibromochloromethane *	ND
_____	Vinyl Chloride	ND	_____	1,1,2-Trichloroethane *	ND
_____	Chloroethane	ND	_____	cis-1,3-Dichloropropene *	ND
_____	Methylene Chloride	ND	_____	2-Chloroethylvinyl Ether	ND
_____	Trichlorofluoromethane	ND	_____	Bromoform	ND
_____	1,1-Dichloroethene	ND	_____	1,1,2,2-Tetrachloroethane #	ND
_____	1,1-Dichloroethane	ND	_____	Tetrachloroethylene #	ND
_____	trans-1,2-Dichloroethene	ND	_____	Chlorobenzene	ND
_____	Chloroform	ND	_____	1,3-Dichlorobenzene	ND
_____	1,2-Dichloroethane	ND	_____	1,2-Dichlorobenzene	ND
_____	1,1,1-Trichloroethane	ND	_____	1,4-Dichlorobenzene	ND
_____	Carbon Tetrachloride	ND			
_____	Bromodichloromethane	ND			
_____	1,2-Dichloropropane	ND			
_____	trans-1,3-Dichloropropene	ND			

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CORPORATION

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Results by Sample

REPORT

LAB # 86-03-002
Continued From Above

SAMPLE ID 860207

FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/28/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Results by Sample

LAB # 86-03-002

SAMPLE ID 860207

FRACTION 02C TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/28/86 Category

DATA FILE 10
CONC. FACTOR 1

DATE INJECTED 03/04/86

ANALYST RP
INSTRUMENT 4

VERIFIED BY MCL
COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
	Toluene	ND		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,2-Dichlorobenzene	ND
	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

LAB # 86-03-002

SAMPLE ID 860208

FRACTION 03A

TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/28/86

Category

DATA FILE 8
CONC. FACTOR 1

DATE INJECTED 03/04/86

ANALYST MCL
INSTRUMENT b

VERIFIED BY MCL
COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
<u>1</u>	Methylene Chloride	<u>0.34</u>
	Trichlorofluoromethane	ND
	1,1-Dichloroethane	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethane	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropane	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

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REPORT

Results by Sample

LAB # 86-03-002

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SAMPLE ID 860208

FRACTION 03A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/28/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).

*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.

#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Results by Sample

LAB # 86-03-002

SAMPLE ID 860208

FRACTION 03C

TEST CODE GC 602

NAME EPA Method 602/GC

Date & Time Collected 02/28/86

Category

DATA FILE 1 D DATE INJECTED 03/04/86 ANALYST RP VERIFIED BY MCL
CONC. FACTOR 1 INSTRUMENT 4 COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Benzene	ND	—	1,4-Dichlorobenzene	ND
1	Toluene	0.64	—	1,3-Dichlorobenzene	ND
—	Ethyl Benzene	ND	—	1,2-Dichlorobenzene	ND
—	Chlorobenzene	ND	—		

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NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Results by Sample

REPORT

LAB # 86-03-002

SAMPLE ID 860209

FRACTION 04A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/28/86

Category

DATA FILE B DATE INJECTED 03/04/86 ANALYST B VERIFIED BY MGL
CONC. FACTOR 1 INSTRUMENT TD COMPOUNDS DETECTED 6

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Chloromethane	ND	4	Trichloroethene	32.3
—	Bromomethane	ND	—	Dibromochloromethane *	ND
—	Vinyl Chloride	ND	—	1,1,2-Trichloroethane *	ND
—	Chloroethane	ND	—	cis-1,3-Dichloropropene *	ND
1	Methylene Chloride	0.37	—	2-Chloroethylvinyl Ether	ND
—	Trichlorofluoromethane	ND	—	Bromoform	ND
—	1,1-Dichloroethene	ND	—	1,1,2,2-Tetrachloroethane #	ND
—	1,1-Dichloroethane	ND	2	Tetrachloroethylene #	0.17
2	trans-1,2-Dichloroethene	0.99**	—	Chlorobenzene	ND
—	Chloroform	ND	—	1,3-Dichlorobenzene	ND
—	1,2-Dichloroethane	ND	6	1,2-Dichlorobenzene	3.03
3	1,1,1-Trichloroethane	0.07	—	1,4-Dichlorobenzene	ND
—	Carbon Tetrachloride	ND			
—	Bromodichloromethane	ND			
—	1,2-Dichloropropane	ND			
—	trans-1,3-Dichloropropene	ND			

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Results by Sample

LAB # 86-03-002

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SAMPLE ID 860209

FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/28/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
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ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Results by Sample

REPORT

FRACTION 04C TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 02/28/86

Category

DATA FILE D DATE INJECTED 03/04/86 ANALYST RP VERIFIED BY MCL
CONC. FACTOR 1 INSTRUMENT 4 COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
1	Toluene	10.9		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND	2	1,2-Dichlorobenzene	4.04
	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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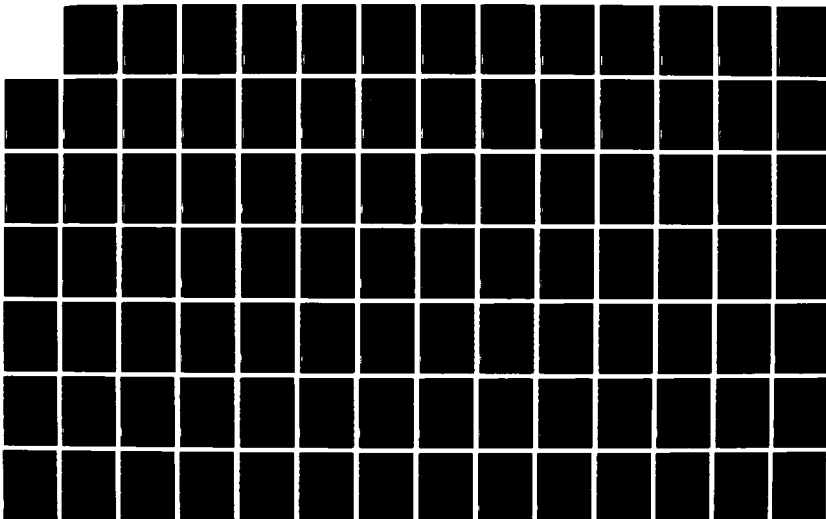
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CONFIRMATION/QUANTIFICATION STAG. (U) RADIAN CORP
AUSTIN TX DEC 87 F33615-83-D-4001

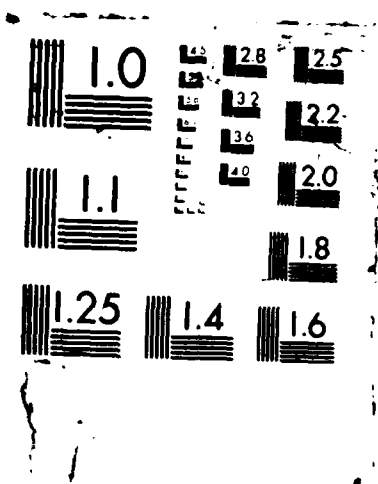
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Results by Sample

REPORT

LAB # 86-03-002

SAMPLE ID 860210

FRACTION 05A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/28/86

Category

DATA FILE _____
CONC. FACTOR 1

DATE INJECTED 03/04/86

ANALYST _____
INSTRUMENT 9

VERIFIED BY MCL
COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Chloromethane	ND	—	Trichloroethene	ND
—	Bromomethane	ND	—	Dibromochloromethane *	ND
—	Vinyl Chloride	ND	—	1,1,2-Trichloroethane *	ND
—	Chloroethane	ND	—	cis-1,3-Dichloropropene *	ND
1	Methylene Chloride	14.3	—	2-Chloroethylvinyl Ether	ND
—	Trichlorofluoromethane	ND	—	Bromoform	ND
—	1,1-Dichloroethene	ND	—	1,1,2,2-Tetrachloroethane #	ND
—	1,1-Dichloroethane	ND	—	Tetrachloroethylene #	ND
—	trans-1,2-Dichloroethene	ND	—	Chlorobenzene	ND
—	Chloroform	ND	—	1,3-Dichlorobenzene	ND
—	1,2-Dichloroethane	ND	—	1,2-Dichlorobenzene	ND
—	1,1,1-Trichloroethane	ND	—	1,4-Dichlorobenzene	ND
—	Carbon Tetrachloride	ND			
—	Bromodichloromethane	ND			
—	1,2-Dichloropropane	ND			
—	trans-1,3-Dichloropropene	ND			

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Results by Sample

LAB # 86-03-002

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FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/28/86

Category

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*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Results by Sample

REPORT

LAB # 86-03-002

SAMPLE ID 860210

FRACTION 05C

TEST CODE GC 602

NAME EPA Method 602/GC

Date & Time Collected 02/28/86

Category

DATA FILE 1
CONC. FACTOR 1

DATE INJECTED 03/03/86

ANALYST MCL
INSTRUMENT 4

VERIFIED BY MCL
COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Benzene	ND	—	1,4-Dichlorobenzene	ND
1	Toluene	7.01	—	1,3-Dichlorobenzene	ND
—	Ethyl Benzene	ND	—	1,2-Dichlorobenzene	ND
—	Chlorobenzene	ND	—		

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NOTES AND DEFINITIONS FOR THIS REPORT.

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Results by Sample

REPORT

LAB # 86-03-002

SAMPLE ID 860211

FRACTION 06A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/28/86

Category

DATA FILE 0 DATE INJECTED 03/04/86 ANALYST RP VERIFIED BY MCL
CONC. FACTOR 1 INSTRUMENT 9 COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Chloromethane	ND	—	Trichloroethene	ND
—	Bromomethane	ND	—	Dibromochloromethane *	ND
—	Vinyl Chloride	ND	—	1,1,2-Trichloroethane *	ND
—	Chloroethane	ND	—	cis-1,3-Dichloropropene *	ND
—	Methylene Chloride	ND	—	2-Chloroethylvinyl Ether	ND
—	Trichlorofluoromethane	ND	—	Bromoform	ND
—	1,1-Dichloroethene	ND	—	1,1,2,2-Tetrachloroethane #	ND
—	1,1-Dichloroethane	ND	—	Tetrachloroethylene #	ND
—	trans-1,2-Dichloroethene	ND	—	Chlorobenzene	ND
—	Chloroform	ND	—	1,3-Dichlorobenzene	ND
—	1,2-Dichloroethane	ND	—	1,2-Dichlorobenzene	ND
—	1,1,1-Trichloroethane	ND	—	1,4-Dichlorobenzene	ND
—	Carbon Tetrachloride	ND			
—	Bromodichloromethane	ND			
—	1,2-Dichloropropane	ND			
—	trans-1,3-Dichloropropene	ND			

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Results by Sample

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SAMPLE ID 860211
FRACTION 06A
Date & Time Collected 02/28/86
TEST CODE GC 601
NAME EPA Method 601/GC
Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
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ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Results by Sample

LAB # 86-03-002

SAMPLE ID 860211
FRACTION 06C
Date & Time Collected 02/28/86
TEST CODE GC 602
NAME EPA Method 602/GC
Category

DATA FILE 10
CONC. FACTOR 1
DATE INJECTED 03/03/86
ANALYST MCL
INSTRUMENT 4
VERIFIED BY MCL
COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
1	Toluene	1.64		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,2-Dichlorobenzene	ND
	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT.

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Results by Sample

LAB # 86-03-002

SAMPLE ID 860212

FRACTION 07A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 02/28/86

Category

DATA FILE B DATE INJECTED 03/04/86 ANALYST RP VERIFIED BY HCL
CONC. FACTOR 1 INSTRUMENT B COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Chloromethane	ND	—	Trichloroethene	ND
—	Bromomethane	ND	—	Dibromochloromethane *	ND
—	Vinyl Chloride	ND	—	1,1,2-Trichloroethane *	ND
—	Chloroethane	ND	—	cis-1,3-Dichloropropene *	ND
<u>1</u>	Methylene Chloride	0.28	—	2-Chloroethylvinyl Ether	ND
—	Trichlorofluoromethane	ND	—	Bromoform	ND
—	1,1-Dichloroethene	ND	—	1,1,2,2-Tetrachloroethane #	ND
—	1,1-Dichloroethane	ND	—	Tetrachloroethylene #	ND
—	trans-1,2-Dichloroethene	ND	—	Chlorobenzene	ND
—	Chloroform	ND	—	1,3-Dichlorobenzene	ND
—	1,2-Dichloroethane	ND	—	1,2-Dichlorobenzene	ND
—	1,1,1-Trichloroethane	ND	—	1,4-Dichlorobenzene	ND
—	Carbon Tetrachloride	ND			
—	Bromodichloromethane	ND			
—	1,2-Dichloropropane	ND			
—	trans-1,3-Dichloropropene	ND			

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Results by Sample

LAB # 86-03-002

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SAMPLE ID 860212

FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/28/86

Category

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SCAN = scan number or retention time on chromatogram.

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ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).

*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.

#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Results by Sample

LAB # 86-03-002

SAMPLE ID 860212
FRACTION 07C
Date & Time Collected 02/28/86
TEST CODE GC 602
NAME EPA Method 602/GC
Category

DATA FILE 0
CONC. FACTOR 1
DATE INJECTED 03/03/86
ANALYST MCL
INSTRUMENT 1
VERIFIED BY MCL
COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
	Toluene	ND		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,2-Dichlorobenzene	ND
	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT.

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All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv

Results by Sample

REPORT

LAB # 86-03-002

SAMPLE ID trip blank

FRACTION 08A

TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected not specified

Category

DATA FILE 9
CONC. FACTOR 1

DATE INJECTED 03/04/86

ANALYST RP
INSTRUMENT 9

VERIFIED BY MCL
COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane #	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane #	ND
	Chloroethane	ND		cis-1,3-Dichloropropene #	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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Results by Sample

LAB # 86-03-002

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SAMPLE ID trip blank

FRACTION 08A

TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected not specified

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).

#Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv
Results by Sample

LAB # 86-03-002

SAMPLE ID trip blank
FRACTION 088
TEST CODE GC 602
NAME EPA Method 602/GC
Date & Time Collected not specified
Category

DATA FILE 0
DATE INJECTED 03/03/86
ANALYST MCL
INSTRUMENT 1
VERIFIED BY MCL
COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
	Toluene	ND		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,2-Dichlorobenzene	ND
	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv
NonReported Work

LAB # 86-03-002

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	:	DUP601			
02B	:	DUP601	02D	:	DUP602
03B	:	DUP601	03D	:	DUP602
04B	:	DUP601	04D	:	DUP602
05B	:	DUP601	05D	:	DUP602
06B	:	DUP601	06D	:	DUP602
07B	:	DUP601	07D	:	DUP602

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RECEIVED: 03/03/86
Analytical Serv
03/11/86 11:37:43
REPORT
LAB # 86-03-003

REPORT Radian
TO Bl. 4
Austin
ATTEN Larry French
CLIENT PLANT 4
COMPANY Plant 4
FACILITY Carswell AFB (Gen. Dynamics)
WORK ID groundwater
TAKEN ES, WJ
TRANS ES, WJ
TYPE
P. O. # 212-027-27-40
INVOICE under separate cover

PREPARED Radian Analytical Services
BY 8301 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766
ATTEN
PHONE (512) 434-4797
CONTACT CONOVER

Chris Rice
CERTIFIED BY

**Unknown compound eluting here.
Second column confirmation performed for EPA 601: -01, -03, -07.

Footnotes and Comments

- * Indicates a value less than 5 times the detection limit.
Potential error for such low values ranges between
50 and 100%.
- 2 Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

SAMPLE IDENTIFICATION

- 01 860213
- 02 field blank (860213)
- 03 860214
- 04 860215
- 05 860216
- 06 field blank (860216)
- 07 860217
- 08 trip blank

Analytical Serv TEST CODES and NAMES used on this report

- QC 601 EPA Method 601/GC
- QC 602 EPA Method 602/GC

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Analytical Serv Results by Sample

LAB # 86-03-003

SAMPLE ID 860213

FRACTION 01A

TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/01/86

Category

DATA FILE 9 DATE INJECTED 03/03/86 ANALYST MCL VERIFIED BY MCL
CONC. FACTOR 1 INSTRUMENT 9 COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
1	Methylene Chloride	0.73		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
2	1,1,1-Trichloroethane	17.0		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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Analytical Serv

REPORT

Results by Sample

LAB # 86-03-003

Continued From Above

SAMPLE ID 860213

FRACTION 01A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 03/01/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-003

SAMPLE ID 860213

FRACTION 01C

TEST CODE GC 602

NAME EPA Method 602/GC

Date & Time Collected 03/01/86

Category

DATA FILE _____ D DATE INJECTED 03/03/86 ANALYST _____ MCL _____ VERIFIED BY MCL
CONC. FACTOR _____ 1 INSTRUMENT _____ d COMPOUNDS DETECTED _____ 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Benzene	ND ;	—	1,4-Dichlorobenzene	ND
1	Toluene	1.73 ;	—	1,3-Dichlorobenzene	ND
—	Ethyl Benzene	ND ;	—	1,2-Dichlorobenzene	ND
—	Chlorobenzene	ND ;			

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in _____ ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample
REPORT

LAB # 86-03-003

SAMPLE ID field blank (860213)
FRACTION 02A
TEST CODE GC 601
NAME EPA Method 601/GC
Date & Time Collected 03/01/86
Category

DATA FILE
CONC. FACTOR 1
DATE INJECTED 03/04/86
ANALYST
INSTRUMENT 9
RP
VERIFIED BY MCL
COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	*
	Vinyl Chloride	ND		1,1,2-Trichloroethane	*
	Chloroethane	ND		cis-1,3-Dichloropropene	*
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	*
	1,1-Dichloroethane	ND		Tetrachloroethylene	*
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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Analytical Serv

REPORT

Results by Sample

LAB # 86-03-003

Continued From Above

SAMPLE ID field blank (860213)

FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/01/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv
Results by Sample

LAB # 86-03-003

SAMPLE ID field blank (860213)

FRACTION 02C TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/01/86

Category

DATA FILE D DATE INJECTED 03/03/86 ANALYST RP VERIFIED BY MCL
CONC. FACTOR 1 INSTRUMENT 4 COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Benzene	ND	—	1,4-Dichlorobenzene	ND
1	Toluene	3.56	—	1,3-Dichlorobenzene	ND
—	Ethyl Benzene	ND	—	1,2-Dichlorobenzene	ND
—	Chlorobenzene	ND	—		

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv

Results by Sample

REPORT

LAB # 86-03-003

SAMPLE ID 860214

FRACTION 03A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 03/01/86

Category

DATA FILE 9
CONC. FACTOR 1

DATE INJECTED 03/04/86

ANALYST
INSTRUMENT

RE
g

VERIFIED BY MCL
COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
1	Methylene Chloride	0.57		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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Analytical Serv

REPORT

Results by Sample

LAB # 86-03-003

Continued From Above

SAMPLE ID 860214

FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/01/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

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ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-003

SAMPLE ID 860214

FRACTION 03C TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/01/86 Category

DATA FILE 1 D DATE INJECTED 03/03/86 ANALYST RP VERIFIED BY MCL
CONC. FACTOR 1 INSTRUMENT 4 COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Benzene	ND	—	1,4-Dichlorobenzene	ND
1	Toluene	1.16	—	1,3-Dichlorobenzene	ND
—	Ethyl Benzene	ND	—	1,2-Dichlorobenzene	ND
—	Chlorobenzene	ND	—		

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv

Results by Sample

REPORT

LAB # 86-03-003

SAMPLE ID 860215

FRACTION 04A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 03/01/86

Category

DATA FILE 0 DATE INJECTED 03/03/86 ANALYST MCL VERIFIED BY MCL
 CONC. FACTOR 1 INSTRUMENT 9 COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Chloromethane	ND	—	Trichloroethene	ND
—	Bromomethane	ND	—	Dibromochloromethane *	ND
—	Vinyl Chloride	ND	—	1,1,2-Trichloroethane *	ND
—	Chloroethane	ND	—	cis-1,3-Dichloropropene *	ND
1	Methylene Chloride	0.73	—	2-Chloroethylvinyl Ether	ND
—	Trichlorofluoromethane	ND	—	Bromoform	ND
—	1,1-Dichloroethene	ND	—	1,1,2,2-Tetrachloroethane #	ND
—	1,1-Dichloroethane	ND	—	Tetrachloroethylene #	ND
—	trans-1,2-Dichloroethene	ND	—	Chlorobenzene	ND
—	Chloroform	ND	—	1,3-Dichlorobenzene	ND
—	1,2-Dichloroethane	ND	—	1,2-Dichlorobenzene	ND
—	1,1,1-Trichloroethane	ND	—	1,4-Dichlorobenzene	ND
—	Carbon Tetrachloride	ND			
—	Bromodichloromethane	ND			
—	1,2-Dichloropropane	ND			
—	trans-1,3-Dichloropropene	ND			

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REPORT

Results by Sample

LAB # 86-03-003

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SAMPLE ID 860215

FRACTION 04A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 03/01/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

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ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).

#Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-03-003

SAMPLE ID 860215

FRACTION 04C

TEST CODE GC 602

NAME EPA Method 602/GC

Date & Time Collected 03/01/86

Category

DATA FILE 2
CONC. FACTOR 1

DATE INJECTED 03/03/86

ANALYST RP
INSTRUMENT d

VERIFIED BY MCL
COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Benzene	ND ;	—	1,4-Dichlorobenzene	ND
<u>1</u>	Toluene	<u>1.46</u> ;	—	1,3-Dichlorobenzene	ND
—	Ethyl Benzene	ND ;	—	1,2-Dichlorobenzene	ND
—	Chlorobenzene	ND ;	—		

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv

Results by Sample

REPORT

LAB # 86-03-003

SAMPLE ID 860216

FRACTION 05A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 03/01/86

Category

DATA FILE 9 DATE INJECTED 03/03/86 ANALYST RP VERIFIED BY MCL
 CONC. FACTOR 1 COMPOUNDS DETECTED 4

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	4	Trichloroethene	8.0
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
1	1,1-Dichloroethene	3.92		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
2	Chloroform	0.36		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
3	1,1,1-Trichloroethane	16.7		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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Results by Sample

REPORT

LAB # 86-03-003

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SAMPLE ID 860216

FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/01/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

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ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-003

SAMPLE ID 860216

FRACTION 05C

TEST CODE GC 602

NAME EPA Method 602/GC

Date & Time Collected 03/01/86

Category

DATA FILE 1
CONC. FACTOR 1

DATE INJECTED 03/03/86

ANALYST RP
INSTRUMENT 4

VERIFIED BY MCL
COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Benzene	ND	—	1,4-Dichlorobenzene	ND
—	Toluene	ND	—	1,3-Dichlorobenzene	ND
—	Ethyl Benzene	ND	—	1,2-Dichlorobenzene	ND
—	Chlorobenzene	ND	—		

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-003

SAMPLE ID field blank (860216)

FRACTION 06A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 03/01/86

Category

DATA FILE G ANALYST RP VERIFIED BY MCL
CONC. FACTOR 1 INSTRUMENT 9 COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Chloromethane	ND	2	Trichloroethene	0.22
—	Bromomethane	ND	—	Dibromochloromethane	*
—	Vinyl Chloride	ND	—	1,1,2-Trichloroethane	*
—	Chloroethane	ND	—	cis-1,3-Dichloropropene	*
1	Methylene Chloride	0.93	—	2-Chloroethylvinyl Ether	ND
—	Trichlorofluoromethane	ND	—	Bromoform	ND
—	1,1-Dichloroethene	ND	—	1,1,2,2-Tetrachloroethane	*
—	1,1-Dichloroethane	ND	—	Tetrachloroethylene	*
—	trans-1,2-Dichloroethene	ND	—	Chlorobenzene	ND
—	Chloroform	ND	—	1,3-Dichlorobenzene	ND
—	1,2-Dichloroethane	ND	—	1,2-Dichlorobenzene	ND
—	1,1,1-Trichloroethane	ND	—	1,4-Dichlorobenzene	ND
—	Carbon Tetrachloride	ND	—		
—	Bromodichloromethane	ND	—		
—	1,2-Dichloropropane	ND	—		
—	trans-1,3-Dichloropropene	ND	—		

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Results by Sample

REPORT

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SAMPLE ID field blank (860216)

FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/01/86 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Results by Sample

REPORT

LAB # 86-03-003

SAMPLE ID field blank (860216)

FRACTION 06C

TEST CODE GC 602

NAME EPA Method 602/GC

Date & Time Collected 03/01/86

Category

DATA FILE _____
CONC. FACTOR 1

DATE INJECTED 03/03/86

ANALYST _____
INSTRUMENT 4

VERIFIED BY MCL
COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Benzene	ND ;	—	1,4-Dichlorobenzene	ND
—	Toluene	ND ;	—	1,3-Dichlorobenzene	ND
—	Ethyl Benzene	ND ;	—	1,2-Dichlorobenzene	ND
—	Chlorobenzene	ND ;			

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-003

SAMPLE ID 860217

FRACTION 07A

TEST CODE GC 601

NAME EPA Method 601/GC

Date & Time Collected 03/01/86

Category

DATA FILE Q DATE INJECTED 03/05/86 ANALYST RP VERIFIED BY MCL
CONC. FACTOR 1 INSTRUMENT g COMPOUNDS DETECTED 3

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	2	Trichloroethene	8.98
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND	3	Tetrachloroethylene #	0.41
1	trans-1,2-Dichloroethene	26.1**		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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SAMPLE ID 860217

Analytical Serv
Results by Sample

LAB # 86-03-003
Continued From Above

FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/01/86 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-003

SAMPLE ID 860217

FRACTION 07C

TEST CODE GC 602

NAME EPA Method 602/GC

Date & Time Collected 03/01/86

Category

DATA FILE _____
CONC. FACTOR _____

DATE INJECTED 03/03/86

ANALYST _____
INSTRUMENT _____

VERIFIED BY MCL _____
COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Benzene	ND !	—	1,4-Dichlorobenzene	ND
—	Toluene	ND !	—	1,3-Dichlorobenzene	ND
—	Ethyl Benzene	ND !	—	1,2-Dichlorobenzene	ND
—	Chlorobenzene	ND !			

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in _____ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

LAB # 86-03-003

SAMPLE ID trip blank

FRACTION OBA

TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected not specified

Category

DATA FILE g DATE INJECTED 03/03/86 ANALYST RP VERIFIED BY MCL
CONC. FACTOR 1 COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Chloromethane	ND	—	Trichloroethene	ND
—	Bromomethane	ND	—	Dibromochloromethane *	ND
—	Vinyl Chloride	ND	—	1, 1, 2-Trichloroethane *	ND
—	Chloroethane	ND	—	cis-1, 3-Dichloropropene *	ND
—	Methylene Chloride	ND	—	2-Chloroethylvinyl Ether	ND
—	Trichlorofluoromethane	ND	—	Bromoform	ND
—	1, 1-Dichloroethene	ND	—	1, 1, 2, 2-Tetrachloroethane #	ND
—	1, 1-Dichloroethane	ND	—	Tetrachloroethylene #	ND
—	trans-1, 2-Dichloroethene	ND	—	Chlorobenzene	ND
—	Chloroform	ND	—	1, 3-Dichlorobenzene	ND
—	1, 2-Dichloroethane	ND	—	1, 2-Dichlorobenzene	ND
—	1, 1, 1-Trichloroethane	ND	—	1, 4-Dichlorobenzene	ND
—	Carbon Tetrachloride	ND			
—	Bromodichloromethane	ND			
—	1, 2-Dichloropropane	ND			
—	trans-1, 3-Dichloropropene	ND			

PAGE 24
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 Analytical Serv
 Results by Sample
 REPORT
 LAB # 86-03-003
 Continued From Above
 SAMPLE ID trip blank
 FRACTION OBA
 TEST CODE GC 601
 NAME EPA Method 601/GC
 Date & Time Collected not specified
 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/L unless otherwise specified.
 ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
 *Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
 #1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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RECEIVED: 03/03/86
Analytical Serv REPORT
Results by Sample LAB # 86-03-003

SAMPLE ID trip blank FRACTION 08B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected not specified Category

DATA FILE D DATE INJECTED 03/03/86 ANALYST RP VERIFIED BY MCL
CONC. FACTOR 1 INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
—	Benzene	ND ;	—	1,4-Dichlorobenzene	ND
—	Toluene	ND ;	—	1,3-Dichlorobenzene	ND
—	Ethyl Benzene	ND ;	—	1,2-Dichlorobenzene	ND
—	Chlorobenzene	ND ;			

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv
NonReported Work
REPORT
LAB # 86-03-003

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	:	DUP601	01D	:	DUP602
02B	:	DUP601	02D	:	DUP602
03B	:	DUP601	03D	:	DUP602
04B	:	DUP601	04D	:	DUP602
05B	:	DUP601	05D	:	DUP602
06B	:	DUP601	06D	:	DUP602
07B	:	DUP601	07D	:	DUP602

PAGE 1
RECEIVED 03/03/86

Analytical Serv

REPORT

LAB # 86-03-004

04/01/86 17:13:35

REPORT Radian

TO BL 4

Austin

ATTEN Larry French

CLIENT PLANT 4

COMPANY Plant 4

FACILITY Carswell AFB (Gen. Dynamics)

SAMPLES 11

WORK ID groundwater

TAKEN FS,WJ

TRANS FS,WJ

TYPE

P O # 212-027-27-00

INVOICE under separate cover

PREPARED Radian Analytical Services

BY 8501 MoPac Blvd

P O Box 9748

Austin, Texas 78765

ATTEN

PHONE (512) 454-4797

CONTACT CONDOVER

Jeff M. H. H.
CERTIFIED BY

Footnotes and Comments

* Indicates a value less than 5 times the detection limit.
Potential error for such low values ranges between
50 and 100%.

@ Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

SAMPLE IDENTIFICATION

01 860207
02 860208
03 860209
04 860210
05 860211
06 860212
07 860213
08 860214
09 860215
10 860216
11 860217

Analytical Serv TEST CODES and NAMES used on this report

AG E Silver, ICPEs
AS GA Arsenic, low level
BA E Barium, ICPEs
CD E Cadmium, ICPEs
CR E Chromium, ICPEs
DG3020 Digestion by Method 3020
DG6010 Digestion by Method 6010
HC IR Hydrocarbons
HG CA Mercury, Cold Vapor
ONG IR Oil and Grease, Infrared
PB GA Lead, low level
SE GA Selenium, low level

PAGE 2
RECEIVED: 03/03/86
Analytical Serv REPORT
RESULTS BY TEST LAB # 86-03-004

TEST CODE	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
AG E ug/ml			0.004*	0.008*	0.002*
AS GA ug/ml			<.005	<.005	<.005
BA E ug/ml			0.11	0.024	0.075
CD E ug/ml			<.002	<.002	<.002
CR E ug/ml			<.005	0.017*	<.005
DG3020 date complete			03/12/86	03/12/86	03/12/86
DG6010 date complete			03/18/86	03/18/86	03/18/86
HC IR mg/L	<1	<1	<1	<1	<1
HG CA ug/ml			<.0002	<.0002	<.0002
UNG IR mg/L	<1	<1	<1	<1	<1
PB GA ug/ml			0.021	0.038	<.001
SE GA ug/ml			<.004	<.004	<.004

RECEIVED: 03/03/86

RESULTS BY TEST

TEST CODE	Sample 06 (entered units)	Sample 07 (entered units)	Sample 08 (entered units)	Sample 09 (entered units)	Sample 10 (entered units)
AG_E ug/ml	0.003*	<.002	0.007*	0.010	0.013
AS_GA ug/ml	<.005	<.005	<.005	<.005	0.005*
BA_E ug/ml	0.078	0.084	0.087	0.089	0.17
CD_E ug/ml	<.002	<.002	<.002	<.002	<.002
CR_E ug/ml	0.031	<.005	0.011*	0.009*	0.069
DG3020 date complete	03/12/86	03/12/86	03/12/86	03/12/86	03/12/86
DG6010 date complete	03/18/86	03/18/86	03/18/86	03/18/86	03/18/86
HC_IR mg/L	<1	<1	<1	<1	
HG_GA ug/ml	<.0002	<.0002	<.0002	<.0002	<.0002
ONG_IR mg/L	<1	<1	<1	<1	
PB_GA ug/ml	0.002*	0.008	<.001	0.009	0.015
SE_GA ug/ml	<.004	<.004	<.004	<.004	<.004

TEST CODE default units	Sample 11 (entered units)
HC IR mg/L	<1
ONG IR mg/L	<1

PAGE 1
RECEIVED: 03/04/86

Analytical Serv
04/10/86 10:21:27

LAB # 86-03-018

REPORT Radian Corporation
TO Larry French
Austin, Texas

PREPARED Radian Analytical Services
BY 8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN _____

ATTEN
PHONE (512) 434-4797

CLIENT PLANT 4 SAMPLES 6
COMPANY General Dynamics
FACILITY QEHL Plant 4, Bldg 4
Austin, Texas

CERTIFIED BY Lucas A. Dutton

WORK ID General Dynamics, Plant 4
TAKEN 2/28/86
TRANS Federal 736746464
TYPE H2O
P.O. # 212-027-27-40
INVOICE under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit.
Potential error for such low values ranges between
50 and 100%.

@ Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

SAMPLE IDENTIFICATION

01 860209 H2O
02 860210 H2O
03 860211 H2O
04 860212 H2O
05 860210 Matrix Spike BNA
05 860211 Duplicate Analysis
05 Reagent Blank BNA
06 Method Spike BNA

Analytical Serv TEST CODES and NAMES used on this report

EX 625 Extraction only - 625 BN/A
M625 A Method 625 Acid Compounds
M625 B Method 625 Base/Neutrals
MS 608 Pesticides & PCBs by GC/MS

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RECEIVED: 03/04/86

Analytical Serv
RESULTS BY TEST

LAB # 86-03-018

TEST CODE	Sample 01	Sample 02	Sample 03	Sample 04	Sample 05
default units	(entered units)	(entered units)	(entered units)	(entered units)	(entered units)
EX 625	03/05/86	03/05/86	03/05/86	03/05/86	03/05/86
date complete					

TEST CODE	Sample 06
default units	(entered units)
EX 625	03/05/86
date complete	

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Analytical Serv
Results by Sample

LAB # 86-03-018

SAMPLE ID 860209 H20
FRACTION 01A
TEST CODE M625 A
NAME Method 625 Acid Compounds
Date & Time Collected 02/28/86
Category

DATA FILE 5003018C01
CONC. FACTOR 1
DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86
ANALYST INSTRUMENT
MM
3100
VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
<u>498</u> AS1	d3-phenol	59%
<u>272</u> AS2	2-fluorophenol	66%
<u>969</u> AS3	2,4,6-tribromophenol	69%
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-03-018

Continued From Above

SAMPLE ID 860209 H2O

FRACTION 01A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 02/28/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
 BL = detected in reagent blank; background subtraction not performed.
 J = estimated value; less than method detection limit.
 CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-03-018

SAMPLE ID 860209 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/28/86

Category

DATA FILE 5CU03018C01
CONC. FACTOR 1

DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST INSTRUMENT 3100

VERIFIED BY LAK
COMPOUNDS DETECTED 2

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	117Z	di-butyl phthalate	1 BLV
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	2	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Analytical Serv

Results by Sample

REPORT

 LAB # 86-03-018
 Continued From Above

SAMPLE ID 860209 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/28/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>488</u> BS1	d5-nitrobenzene <u>48</u>
<u>747</u> BS2	2-fluorobiphenyl <u>56</u>
<u>1324</u> BS3	d14-terphenyl <u>50</u>
BS4	d10-biphenyl

4 219

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-03-018

Continued From Above

SAMPLE ID 860209 H2O

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/28/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-03-018

SAMPLE ID 860209 H20

FRACTION 01A

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/28/86

Category

DATA FILE 5CU03018C01
CONC. FACTOR

DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST MM

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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RECEIVED: 03/04/86
SAMPLE ID 860209 H20
Analytical Serv Results by Sample
REPORT
LAB # 86-03-018
Continued From Above
FRACTION 01A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS
Date & Time Collected 02/28/86 Category _____

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv

REPORT

Results by Sample

LAB # 86-03-018

SAMPLE ID 860210 H2O

FRACTION 02A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/28/86

Category

DATA FILE 5CU03018C02
CONC. FACTOR 1

DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST
INSTRUMENT

MM
3100

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
373 AS1	d3-phenol	60%
272 AS2	2-fluorophenol	37%
970 AS3	2,4,6-tribromophenol	70%
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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RECEIVED: 03/04/86

Analytical Serv

Results by Sample

REPORT

LAB # 86-03-018

Continued From Above

SAMPLE ID 860210 H2O

FRACTION 02A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 02/28/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Results by Sample

LAB # 86-03-018

SAMPLE ID 860210 H20

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/28/86

Category

DATA FILE 5CU03018C02
CONC. FACTOR 1DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86ANALYST
INSTRUMENT 3100VERIFIED BY LAK
COMPOUNDS DETECTED 2

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B 1313	66B	bis(2-ethylhexyl)phthalate	3
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B 1179	68B	di-butyl phthalate	2 BL
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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RECEIVED: 03/04/86

Analytical Serv

REPORT

Results by Sample

LAB # 86-03-018

Continued From Above

SAMPLE ID 860210 H2O

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/28/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene	
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
490 BS1	d5-nitrobenzene 43
748 BS2	2-fluorobiphenyl 57
1325 BS3	d14-terphenyl 73
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * benzo(b)fluoranthene and benzo(k)fluorant e co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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 RECEIVED: 03/04/86
 SAMPLE ID 860210 H20
 Analytical Serv
 Results by Sample
 FRACTION 02A TEST CODE M625 B NAME Method 625 Base/Neutrals
 Date & Time Collected 02/28/86 Category _____

LAB # 86-03-018
 Continued From Above

B = anthracene and phenanthrene co-elute in high concentrations.
 BL = detected in reagent blank; background subtraction not performed.
 J = estimated value, less than method detection limit.
 CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-018

SAMPLE ID 860210 H20

FRACTION 02A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/28/86

Category

DATA FILE 5CU03018C02
CONC. FACTOR

DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST MM

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

RADIAN
CORPORATION

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RECEIVED: 03/04/86

Analytical Serv

Results by Sample

REPORT

LAB # 86-03-018

Continued From Above

SAMPLE ID 860210 H20

FRACTION 02A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/28/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-018

SAMPLE ID 860211 H20

FRACTION 03A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 02/28/86

Category

DATA FILE 3CU03018C03
CONC. FACTOR 1

DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST
INSTRUMENT

MM
5100

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
376 AS1	d5-phenol	70%
273 AS2	2-fluorophenol	75%
970 AS3	2,4,6-tribromophenol	77%
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-03-018

Continued From Above

SAMPLE ID 860211 H2O

FRACTION 03A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 02/28/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-018

SAMPLE ID 860211 H20

FRACTION 03A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/28/86

Category

DATA FILE 5CU03018C03
CONC. FACTOR 1

DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST
INSTRUMENT 5100

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene	ND

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Analytical Serv
Results by Sample

LAB # 86-03-018
Continued From Above

SAMPLE ID 860211 H20
FRACTION Q3A
Date & Time Collected 02/28/86
TEST CODE M625 B
NAME Method 625 Base/Neutrals
Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
491 BS1	d5-nitrobenzene 43%
750 BS2	2-fluorobiphenyl 54%
1326 BS3	d14-terphenyl 67%
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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SAMPLE ID 860211 H20

Analytical Serv
Results by Sample

REPORT
LAB # 86-03-018
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FRACTION 03A TEST CODE M625 B NAME Method 625 Base/Neutrals
Date & Time Collected 02/28/86 Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-018

SAMPLE ID 860211 H2G

FRACTION 03A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/28/86

Category

DATA FILE 5CU03018C03
CONC. FACTOR

DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST MM

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Results by Sample

REPORT

LAB # 86-03-018

Continued From Above

SAMPLE ID 860211 H20

FRACTION 03A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/28/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample
REPORT
LAB # 86-03-018
FRACTION 04A
TEST CODE M625 A
NAME Method 625 Acid Compounds
Date & Time Collected 02/28/86
Category

DATA FILE 5CU03018C04
CONC. FACTOR 1
DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST
INSTRUMENT
MM
3100
VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

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SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
375 AS1	d5-phenol	62
272 AS2	2-fluorophenol	72
970 AS3	2,4,6-tribromophenol	71
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-03-018

Continued From Above

SAMPLE ID 860212 H2O

FRACTION 04A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 02/28/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv Results by Sample

REPORT

LAB # 86-03-018

SAMPLE ID 860212 H20

FRACTION 04A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/28/86

Category

DATA FILE 3CU03018C04
CONC. FACTOR 1

DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST
INSTRUMENT

MM
3100

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Results by Sample
REPORT
LAB # 86-03-018
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SAMPLE ID 860212 H20
FRACTION 04A
Date & Time Collected 02/28/86
TEST CODE M625 B
NAME Method 625 Base/Neutrals
Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>491</u> BS1	d5-nitrobenzene <u>45%</u>
<u>749</u> BS2	2-fluorobiphenyl <u>52%</u>
<u>1326</u> BS3	d14-terphenyl <u>70%</u>
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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REPORT

Results by Sample

LAB # 86-03-018

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SAMPLE ID 860212 H20

FRACTION 04A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 02/28/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-018

SAMPLE ID 860212 H20

FRACTION 04A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/28/86

Category

DATA FILE 5CU03018C04
CONC. FACTOR

DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST MM

VERIFIED BY LAK
COMPOUNDS DETECTED 9

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

WATKINS
CORPORATION

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Results by Sample

REPORT

LAB # 86-03-018

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SAMPLE ID 860212 H2O

FRACTION 04A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 02/28/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-018

SAMPLE ID 860210 Matrix Spike BNA

FRACTION 05A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 5CM93018CQ3

DATE EXTRACTED 03/06/86

ANALYST

MM

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/24/86

INSTRUMENT

3100

COMPOUNDS DETECTED 11

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT		
11A	<u>737</u>	21A	2, 4, 6-trichlorophenol	79%	7A	<u>889</u>	58A	4-nitrophenol	12%
8A	<u>672</u>	22A	4-chloro-3-methylphenol	110%	5A	<u>864</u>	59A	2, 4-dinitrophenol	27%
1A	<u>389</u>	24A	2-chlorophenol	91%	4A	<u>947</u>	60A	2-methyl-4, 6-dinitrophenol	90%
2A	<u>569</u>	31A	2, 4-dichlorophenol	68%	9A	<u>1036</u>	64A	pentachlorophenol	93%
3A	<u>544</u>	34A	2, 4-dimethylphenol	30%	10A	<u>373</u>	65A	phenol	81%

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
374 AS1	d5-phenol	70%
270 AS2	2-fluorophenol	66%
970 AS3	2,4,6-tribromophenol	86%
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in% Recov. unless otherwise specified.

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Results by Sample

REPORT

LAB # 86-03-018

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SAMPLE ID 860210 Matrix Spike BNA

FRACTION 05A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-03-018

SAMPLE ID 860210 Matrix Spike BNA

FRACTION 05A
Date & Time Collected not specified

TEST CODE M625 B NAME Method 625 Base/Neutrals
Category

DATA FILE 5CM03018C02
CONC. FACTOR 1

DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST INSTRUMENT 3100 MM

VERIFIED BY LAK
COMPOUNDS DETECTED 43

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	853	1B	acenaphthene	41B	150	61B	N-nitrosodimethylamine
			90%				1%
4B	5B	5B	benzidine	43B	952	62B	N-nitrosodiphenylamine
			ND				1700%
46B	579	8B	1,2,4-trichlorobenzene	42B	471	63B	N-nitrosodi-n-propylamine
			80%				65%
33B	1028	9B	hexachlorobenzene	13B	1320	66B	bis(2-ethylhexyl)phthalate
			102%				80%
36B	478	12B	hexachloroethane	15B	1412	67B	butyl benzyl phthalate
			82%				32%
11B	383	18B	bis(2-chloroethyl)ether	26B	1179	68B	di-butyl phthalate
			76%				88%
16B	761	20B	2-chloronaphthalene	29B	1641	69B	di-n-octyl phthalate
			82%				86%
20B	437	25B	1,2-dichlorobenzene	24B	926	70B	diethyl phthalate
			84%				92%
21B	407	26B	1,3-dichlorobenzene	25B	817	71B	dimethyl phthalate
			79%				85%
22B	413	27B	1,4-dichlorobenzene	5B	1489	72B	benzo(a)anthracene A
			77%				74%
23B	288	28B	3,3'-dichlorobenzidine	6B	1736	73B	benzo(a)pyrene
			ND				83%
27B	832	35B	2,4-dinitrotoluene	7B	1677	74B	benzo(b)fluoranthene *
			87%				198%
28B	822	36B	2,6-dinitrotoluene	9B	1682	75B	benzo(k)fluoranthene *
			81%				158%
29B	378	37B	1,2-diphenylhydrazine	18B	1496	76B	chrysene A
			ND				83%
31B	1263	39B	fluoranthene	2B	824	77B	acenaphthylene
			89%				91%
17B	933	40B	4-chlorophenyl phenyl ether	3B	1084	78B	anthracene B
			93%				97%

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REPORT

Results by Sample

LAB # 86-03-018

Continued From Above

SAMPLE ID 860210 Matrix Spike BNA

FRACTION 05A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	<u>100Z</u>	41B	4-bromophenyl phenyl ether	<u>108Z</u>	8B	<u>208B</u>	79B	benzo(ghi)perylene	<u>62Z</u>
12B	<u>424</u>	42B	bis(2-chloroisopropyl)ether	<u>56Z</u>	32B	<u>93Q</u>	80B	fluorene	<u>88Z</u>
10B	<u>556</u>	43B	bis(2-chloroethoxy)methane	<u>76Z</u>	44B	<u>107Z</u>	81B	phenanthrene B	<u>88Z</u>
34B	<u>616</u>	52B	hexachlorobutadiene	<u>94Z</u>	19B	<u>2026</u>	82B	dibenzo(a,h)anthracene	<u>43Z</u>
35B	<u>724</u>	53B	hexachlorocyclopentadiene	<u>10Z</u>	37B	<u>2011</u>	83B	indeno(1,2,3-cd)pyrene	<u>17Z</u>
38B	<u>522</u>	54B	isophorone	<u>83Z</u>	45B	<u>129Z</u>	84B	pyrene	<u>83Z</u>
39B	<u>58Z</u>	55B	naphthalene	<u>81Z</u>					
40B	<u>49Q</u>	56B	nitrobenzene	<u>63Z</u>					

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SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>49Z</u> BS1	d5-nitrobenzene <u>7Q</u>
<u>74Z</u> BS2	2-fluorobiphenyl <u>6B</u>
<u>132Z</u> BS3	d14-terphenyl <u>6Q</u>
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in % Recovery, unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Results by Sample

REPORT

LAB # 86-03-018

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SAMPLE ID 860210 Matrix Spike BNA

FRACTION 05A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-018

SAMPLE ID 860211 Duplicate Analysis

FRACTION 05B

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 5CD03018C03
CONC. FACTOR 1

DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST
INSTRUMENT 5100 MM

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
<u>375</u> AS1	d3-phenol	<u>34</u>
<u>270</u> AS2	2-fluorophenol	<u>60</u>
<u>971</u> AS3	2,4,6-tribromophenol	<u>61</u>
AS4	d3-phenol	<u> </u>

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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REPORT

Results by Sample

LAB # 86-03-018

Continued From Above

SAMPLE ID 860211 Duplicate AnalysisFRACTION 05BTEST CODE M625 ANAME Method 625 Acid CompoundsDate & Time Collected not specified

Category _____

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-03-018

SAMPLE ID 860211 Duplicate Analysis

FRACTION 05B

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE 5CD03081C05
CONC. FACTOR 1
DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86

ANALYST
INSTRUMENT
MM
5100
VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Analytical Serv

REPORT

Results by Sample

LAB # 86-03-018

Continued From Above

SAMPLE ID 860211 Duplicate Analysis

FRACTION 05B

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
493 BS1	d5-nitrobenzene 34
750 BS2	2-fluorobiphenyl 37
1327 BS3	d14-terphenyl 74
BS4	d10-biphenyl

4 252

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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REPORT

Results by Sample

LAB # 86-03-018

Continued From Above

SAMPLE ID 860211 Duplicate Analysis

FRACTION 05B

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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REPORT

LAB # 86-03-018

Results by Sample

SAMPLE ID 860211 Duplicate Analysis

FRACTION 05B

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

DATA FILE 5CD03018C03

DATE EXTRACTED 03/06/86

ANALYST MM

VERIFIED BY LAK

CONC. FACTOR

DATE INJECTED 03/24/86

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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REPORT

Results by Sample

LAB # 86-03-018

Continued From Above

SAMPLE ID 860211 Duplicate Analysis

FRACTION 05B

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv

Results by Sample

REPORT

LAB # 86-03-018

SAMPLE ID Reagent Blank BNA

FRACTION 05C

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 2CB03016C13
CONC. FACTOR 1

DATE EXTRACTED 03/03/86
DATE INJECTED 03/19/86

ANALYST MM
INSTRUMENT f2

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
471 AS1	d3-phenol	87%
353 AS2	2-fluorophenol	60%
1116 AS3	2,4,6-tribromophenol	72%
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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Results by Sample

REPORT

LAB # 86-03-018

Continued From Above

SAMPLE ID Reagent Blank BNA

FRACTION 05C

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-03-018

SAMPLE ID Reagent Blank BNA

FRACTION 05C

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE 2CB03016C18
CONC. FACTOR 1
DATE EXTRACTED 03/05/86
DATE INJECTED 03/19/86

ANALYST
INSTRUMENT F2

VERIFIED BY LAK
COMPOUNDS DETECTED 1

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
18	18	acenaphthene	ND	418	618	N-nitrosodimethylamine	ND
48	58	benzidine	ND	438	628	N-nitrosodiphenylamine	ND
468	88	1,2,4-trichlorobenzene	ND	428	638	N-nitrosodi-n-propylamine	ND
338	98	hexachlorobenzene	ND	138	668	bis(2-ethylhexyl)phthalate	ND
368	128	hexachloroethane	ND	158	678	butyl benzyl phthalate	ND
118	188	bis(2-chloroethyl)ether	ND	268	688	di-butyl phthalate	3
168	208	2-chloronaphthalene	ND	298	698	di-n-octyl phthalate	ND
208	258	1,2-dichlorobenzene	ND	248	708	diethyl phthalate	ND
218	268	1,3-dichlorobenzene	ND	258	718	dimethyl phthalate	ND
228	278	1,4-dichlorobenzene	ND	58	728	benzo(a)anthracene A	ND
238	288	3,3'-dichlorobenzidine	ND	68	738	benzo(a)pyrene	ND
278	358	2,4-dinitrotoluene	ND	78	748	benzo(b)fluoranthene *	ND
288	368	2,6-dinitrotoluene	ND	98	758	benzo(k)fluoranthene *	ND
298	378	1,2-diphenylhydrazine	ND	188	768	chrysene A	ND
318	398	fluoranthene	ND	28	778	acenaphthylene	ND
178	408	4-chlorophenyl phenyl ether	ND	38	788	anthracene B	ND

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Results by Sample

REPORT

LAB # 86-03-018

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SAMPLE ID Reagent Blank BNA

FRACTION 05C

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>603</u> BS1	d5-nitrobenzene <u>92</u>
<u>883</u> BS2	2-fluorobiphenyl <u>84</u>
<u>1487</u> BS3	d14-terphenyl <u>68</u>
BS4	d10-biphenyl

4 259

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 + = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Analytical Serv
Results by Sample
REPORT
LAB # 86-03-018
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SAMPLE ID Reagent Blank BNA FRACTION 05C TEST CODE M625 B NAME Method 625 Base/Neutrals
Date & Time Collected not specified Category _____

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample
REPORT
LAB # 86-03-018
SAMPLE ID Reagent Blank BNA
FRACTION 05C
TEST CODE MS 608
NAME Pesticides & PCBs by GC/MS
Date & Time Collected not specified
Category

DATA FILE SCB03016C18
DATE EXTRACTED 03/03/86
DATE INJECTED 03/19/86
ANALYST
MM
VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Analytical Serv

Results by Sample

REPORT

LAB # 86-03-018

Continued From Above

SAMPLE ID Reagent Blank BNA

FRACTION OSC

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-018

SAMPLE ID Method Spike BNA

FRACTION 06A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 5CM03032C03
CONC. FACTOR 1

DATE EXTRACTED 03/10/86
DATE INJECTED 03/27/86

ANALYST
INSTRUMENT

WJL
3100

VERIFIED BY LAK
COMPOUNDS DETECTED 11

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	<u>717</u>	21A	2,4,6-trichlorophenol	<u>100</u>	7A	<u>858</u>	58A
8A	<u>656</u>	22A	4-chloro-3-methylphenol	<u>90</u>	5A	<u>841</u>	59A
1A	<u>374</u>	24A	2-chlorophenol	<u>73</u>	4A	<u>924</u>	60A
2A	<u>531</u>	31A	2,4-dichlorophenol	<u>95</u>	9A	<u>1030</u>	64A
3A	<u>527</u>	34A	2,4-dimethylphenol	<u>49</u>	10A	<u>361</u>	65A
6A	<u>516</u>	57A	2-nitrophenol	<u>97</u>			

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
<u>360</u>	AS1	d3-phenol <u>57</u>
<u>258</u>	AS2	2-fluorophenol <u>52</u>
<u>946</u>	AS3	2,4,6-tribromophenol <u>94</u>
AS4		d3-phenol

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in % unless otherwise specified.

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REPORT

Results by Sample

LAB # 86-03-018

Continued From Above

SAMPLE ID Method Spike BNA

FRACTION 06A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
 BL = detected in reagent blank; background subtraction not performed.
 J = estimated value; less than method detection limit.
 CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-03-018

SAMPLE ID Method Spike BNA

FRACTION 06A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE 5CM03032C03

DATE EXTRACTED 03/10/86

ANALYST

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/27/86

INSTRUMENT

COMPOUNDS DETECTED 45

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT		
1B	831	1B	acenaphthene	81	41B	153	61B	N-nitrosodimethylamine	25
4B		5B	benzidine	ND	43B	929	62B	N-nitrosodiphenylamine	97
46B	562	8B	1,2,4-trichlorobenzene	83	42B	455	63B	N-nitrosodi-n-propylamine	67
33B	1003	9B	hexachlorobenzene	116	13B	1477	66B	bis(2-ethylhexyl)phthalate	73
36B	462	12B	hexachloroethane	60	15B	1381	67B	butyl benzyl phthalate	35
11B	369	18B	bis(2-chloroethyl)ether	58	26B	1153	68B	di-butyl phthalate	83
16B	741	20B	2-chloronaphthalene	84	29B	1568	69B	di-n-octyl phthalate	82
20B	422	25B	1,2-dichlorobenzene	66	24B	904	70B	diethyl phthalate	77
21B	372	26B	1,3-dichlorobenzene	67	25B	796	71B	dimethyl phthalate	48
22B	398	27B	1,4-dichlorobenzene	64	5B	1454	72B	benzo(a)anthracene A	90
23B	1434	28B	3,3'dichlorobenzidine	125	6B	1661	73B	benzo(a)pyrene	89
27B	863	35B	2,4-dinitrotoluene	89	7B	1615	74B	benzo(b)fluoranthene *	101
28B	804	36B	2,6-dinitrotoluene	86	9B	1619	75B	benzo(k)fluoranthene *	94
29B		37B	1,2-diphenylhydrazine	NA	18B	1460	76B	chrysene A	84
31B	1234	39B	fluoranthene	97	2B	803	77B	acenaphthylene	77
17B	910	40B	4-chlorophenyl phenyl ether	97	3B	1058	78B	anthracene B	97

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Analytical Serv

Results by Sample

REPORT

LAB # 86-03-018

Continued From Above

SAMPLE ID Method Spike BNA

FRACTION 06A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	<u>923</u>	41B	4-bromophenyl phenyl ether	<u>107</u>	88	<u>1918</u>	798	benzo(ghi)perylene	<u>90</u>
12B	<u>439</u>	42B	bis(2-chloroisopropyl)ether	<u>61</u>	32B	<u>907</u>	808	fluorene	<u>83</u>
10B	<u>539</u>	43B	bis(2-chloroethoxy)methane	<u>77</u>	44B	<u>1031</u>	818	phenanthrene B	<u>89</u>
34B		52B	hexachlorobutadiene	<u>102</u>	19B	<u>1863</u>	828	dibenzo(a,h)anthracene	<u>97</u>
35B	<u>599</u>	53B	hexachlorocyclopentadiene	<u>102</u>	37B	<u>1863</u>	838	indeno(1,2,3-cd)pyrene	<u>97</u>
38B	<u>505</u>	54B	isophorone	<u>79</u>	45B	<u>1267</u>	848	pyrene	<u>70</u>
39B	<u>569</u>	55B	naphthalene	<u>76</u>					
40B	<u>473</u>	56B	nitrobenzene	<u>72</u>					

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>470</u> BS1	d5-nitrobenzene <u>79</u>
<u>729</u> BS2	2-fluorobiphenyl <u>73</u>
<u>1297</u> BS3	d14-terphenyl <u>44</u>
BS4	d10-biphenyl <u> </u>

4 266

DEFINITIONS FOR THIS REPORT.

- 1. All scan number or retention time on chromatogram.
- 2. Results reported in % unless otherwise specified.
- 3. Compounds detected at EPA detection limit method 625, (Federal Register, 10/26/84).
- 4. Compounds detected at EPA detection limit method 625, (Federal Register, 10/26/84).
- 5. Compounds detected at EPA detection limit method 625, (Federal Register, 10/26/84).

AD-A198 444

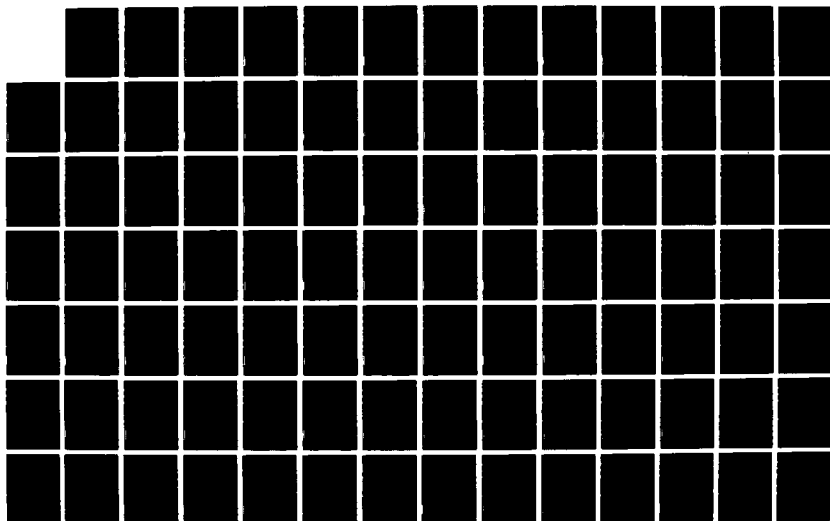
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CONFIRMATION/QUANTIFICATION STAG. (U) RADIAN CORP
AUSTIN TX DEC 87 F33615-83-D-4001

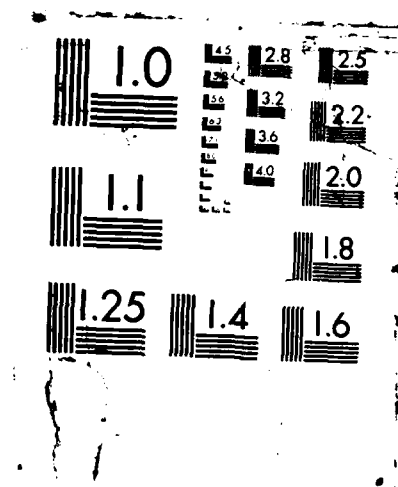
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RADIAN
CORPORATION

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REPORT

Results by Sample

LAB # 86-03-018

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SAMPLE ID Method Spike BNA

FRACTION 06A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

RADIAN
CORPORATION

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Analytical Serv

REPORT

NonReported Work

LAB # 86-03-018

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

02B : DUP_NS
03B : DUP_NS
04B : DUP_NS

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Analytical Serv

REPORT

LAB # 86-03-021

09/08/86 11:54:22

REPORT Radian Corporation
TO Larry French
Austin, Texas

PREPARED Radian Analytical Services
BY 8301 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

CERTIFIED BY

ATTEN

PHONE (512) 454-4797

CONTACT FRENCH

CLIENT PLANT 4
COMPANY General Dynamics
FACILITY DEHL Plant 4, Bldg 4
Austin, Texas

SAMPLES 8

WORK ID Plant 4
TAKEN 2/28/86 and 3-1-86
TRANS Fed Ex 736746446
TYPE H2O and Soil
P.O. # 212-027-27-40
INV. # 7678

Duplicate of report of 04/11/86.

Footnotes and Comments

* Indicates a value less than 3 times the detection limit.
Potential error for such low values ranges between
50 and 100%.

4 269

* Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

SAMPLE IDENTIFICATION

01 860213 H2O
02 860214 H2O
03 860215 H2O
04 860216 H2O
05 Reagent Blank
06 860025 H2O VOA Soil
07 860026 VOA Soil
08 Reagent Blank VOA

Analytical Serv TEST CODES and NAMES used on this report

EX 625 Extraction only - 625 BN/A
IFB VS VOA Screen by IFB method
M625 A Method 625 Acid Compounds
M625 B Method 625 Base/Neutrals
MS 608 Pesticides & PCBs by GC/MS
SWB240 GCMS Volatiles - SWB46

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Analytical Serv REPORT
RESULTS BY TEST LAB # 86-03-021

TEST CODE	Sample 01	Sample 02	Sample 03	Sample 04	Sample 05
default units	(entered units)	(entered units)	(entered units)	(entered units)	(entered units)
EX_625	03/05/86	03/05/86	03/05/86	03/05/86	03/05/86
date complete					

TEST CODE	Sample 06	Sample 07
default units	(entered units)	(entered units)
IFB VS	03/06/86	03/06/86
date complete		

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Analytical Serv

REPORT

LAB # 86-03-021

Results by Sample

SAMPLE ID 860213 H20

FRACTION 01A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 03/01/86

Category

DATA FILE 5CU03021C01

DATE EXTRACTED 03/05/86

ANALYST

WJL

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/24/86

INSTRUMENT

510Q

COMPOUNDS DETECTED Q

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
375 AS1	d5-phenol	65
270 AS2	2-fluorophenol	70
971 AS3	2,4,6-tribromophenol	70
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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SAMPLE ID 860213 H20

Analytical Serv
Results by Sample

REPORT
LAB # 86-03-021
Continued From Above

FRACTION 01A TEST CODE M625 A NAME Method 625 Acid Compounds
Date & Time Collected 03/01/86 Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-021

SAMPLE ID 860213 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 03/01/86

Category

DATA FILE 35U03021C01		DATE EXTRACTED 03/05/86		ANALYST		WJL		VERIFIED BY LAK	
CONC. FACTOR 1		DATE INJECTED 03/24/86		INSTRUMENT		5100		COMPOUNDS DETECTED Q	
NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT		
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND		
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND		
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND		
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND		
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND		
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND		
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND		
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND		
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND		
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND		
23B	28B	3,3'dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND		
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND		
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND		
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND		
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND		
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND		

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Analytical Serv

REPORT

Results by Sample

LAB # 86-03-021

Continued From Above

SAMPLE ID 860213 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 03/01/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>493</u> BS1	d5-nitrobenzene <u>37</u>
<u>750</u> BS2	2-fluorobiphenyl <u>36</u>
<u>1328</u> BS3	d14-terphenyl <u>53</u>
BS4	d10-biphenyl

4 274

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-03-021

Continued From Above

SAMPLE ID 860213 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 03/01/86

Category _____

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

LAB # 86-03-021

SAMPLE ID 860213 H20

FRACTION 01A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 03/01/86

Category

DATA FILE 3CU03021C01
CONC. FACTOR

DATE EXTRACTED 03/05/86
DATE INJECTED 03/24/86

ANALYST MJL

VERIFIED BY LAK
COMPOUNDS DETECTED Q

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Analytical Serv

Results by Sample

REPORT

LAB # 86-03-021

Continued From Above

SAMPLE ID 860213 H20

FRACTION 01A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 03/01/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-021

SAMPLE ID 860214 H2J

FRACTION 02A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 03/01/86

Category

DATA FILE 5CU3021C02
CONC. FACTOR 1

DATE EXTRACTED 03/05/86
DATE INJECTED 03/24/86

ANALYST
INSTRUMENT

WJL
310Q

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
376 AS1	d5-phenol	63
272 AS2	2-fluorophenol	69
972 AS3	2,4,6-tribromophenol	83
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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CORPORATION

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Results by Sample

REPORT

LAB # 86-03-021

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SAMPLE ID 860214 H2O

FRACTION 02A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 03/01/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv Results by Sample

REPORT

LAB # 86-03-021

SAMPLE ID 860214 H20

FRACTION 02A
Date & Time Collected 03/01/86

TEST CODE M625 B NAME Method 625 Base/Neutrals
Category

DATA FILE SCU03021C02
CONC. FACTOR 1

DATE EXTRACTED 03/03/86
DATE INJECTED 03/24/86

ANALYST INSTRUMENT
WJL 5100

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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REPORT

LAB # 86-03-021

Results by Sample

Continued From Above

SAMPLE ID 860214 H2O

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 03/01/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
492 BS1	d5-nitrobenzene 57
751 BS2	2-fluorobiphenyl 56
972 BS3	d14-terphenyl 71
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Results by Sample

REPORT

LAB # 86-03-021

Continued From Above

SAMPLE ID 860214 H20

FRACTION 02A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected 03/01/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-021

SAMPLE ID 860214 H20

FRACTION 02A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 03/01/86

Category

DATA FILE SCU03021C02
CONC. FACTOR

DATE EXTRACTED 03/03/86
DATE INJECTED 03/24/86

ANALYST WJL

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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SAMPLE ID 860214 H20

Analytical Serv
Results by Sample

REPORT
TEST CODE MS 608
NAME Pesticides & PCBs by GC/MS

LAB # 86-03-021
Continued From Above

Date & Time Collected 03/01/86
Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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REPORT

LAB # 86-03-021

Results by Sample

SAMPLE ID 860215 H2O

FRACTION 03A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 03/01/86

Category

DATA FILE 36U03021C03

DATE EXTRACTED 03/03/86

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/24/86

ANALYST

WJL

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
376 AS1	d3-phenol	34
270 AS2	2-fluorophenol	52
972 AS3	2,4,6-tribromophenol	49
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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REPORT

Results by Sample

LAB # 86-03-021

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SAMPLE ID 860215 H2O

FRACTION 03A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 03/01/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Results by Sample

REPORT

LAB # 86-03-021

SAMPLE ID 860215 H20

FRACTION 03A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 03/01/86

Category

DATA FILE SCU03021C03

DATE EXTRACTED 03/03/86

ANALYST

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/24/86

INSTRUMENT

COMPOUNDS DETECTED Q

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
41B	18B	s(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
216B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
208	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Analytical Serv

REPORT

LAB # 86-03-021

Results by Sample Continued From Above

SAMPLE ID 860215 H20

FRACTION 03A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 03/01/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
4 497 BS1	d5-nitrobenzene 14
2 731 BS2	2-fluorobiphenyl 32
8 132B BS3	d14-terphenyl 78
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

RADIAN
CORPORATION

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REPORT

Results by Sample

LAB # 86-03-021

Continued From Above

SAMPLE ID 860215 H20

FRACTION 03A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 03/01/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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REPORT

LAB # 86-03-021

Results by Sample

SAMPLE ID 860215 H20

FRACTION 03A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 03/01/86

Category

DATA FILE 3CU03021C03

DATE EXTRACTED 03/03/86

ANALYST HJL

VERIFIED BY LAK

CONC. FACTOR

DATE INJECTED 03/24/86

HJL

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

RADIAN
CORPORATION

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Results by Sample

REPORT

LAB # 86-03-021

Continued From Above

SAMPLE ID 860215 H20

FRACTION 03A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 03/01/86

Category _____

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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REPORT

Results by Sample

LAB # 86-03-021

SAMPLE ID 860216 H2O

FRACTION 04A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 03/01/86

Category

DATA FILE 5CU03021C04

DATE EXTRACTED 03/03/86

ANALYST

HJL

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/24/86

INSTRUMENT

5100

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
375 AS1	45-phenol	44
270 AS2	2-fluorophenol	53
972 AS3	2,4,6-tribromophenol	53
AS4	43-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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REPORT

LAB # 86-03-021

Results by Sample

Continued From Above

SAMPLE ID 860216 H2O

FRACTION 04A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 03/01/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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REPORT

Results by Sample

LAB # 86-03-021

SAMPLE ID 860216 H20

FRACTION 04A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 03/01/86

Category

DATA FILE 3CU03021C04
CONC. FACTOR 1

DATE EXTRACTED 03/03/86
DATE INJECTED 03/24/86

ANALYST
INSTRUMENT

M/L
3100

VERIFIED BY LAK
COMPOUNDS DETECTED Q

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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REPORT

Results by Sample

LAB # 86-03-021

Continued From Above

SAMPLE ID 860216 H20

FRACTION 04A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 03/01/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
4 491 BS1	43-nitrobenzene 18
295 750 BS2	2-fluorobiphenyl 53
1327 BS3	d14-terphenyl 64
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Results by Sample

LAB # 86-03-021

Continued From Above

SAMPLE ID 860216 H20

FRACTION 04A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 03/01/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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REPORT

Results by Sample

LAB # 86-03-021

SAMPLE ID 860216 H20

FRACTION 04A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 03/01/86

Category

DATA FILE 5CU03021C04
CONC. FACTOR

DATE EXTRACTED 03/03/86
DATE INJECTED 03/24/86

ANALYST WJL

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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CORPORATION

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REPORT

Results by Sample

LAB # 86-03-021

Continued From Above

SAMPLE ID 860216 H20

FRACTION 04A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 03/01/86

Category _____

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv

REPORT

LAB # 86-03-021

Results by Sample

SAMPLE ID Reagent Blank

FRACTION 05A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 2CB03016C1B

DATE EXTRACTED 03/03/86

ANALYST

WALL

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/19/86

INSTRUMENT

f2

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
471 AS1	d3-phenol	87
353 AS2	2-fluorophenol	60
1116 AS3	2,4,6-tribromophenol	72
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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Analytical Serv

REPORT

LAB # 86-03-021

Results by Sample

Continued From Above

SAMPLE ID Reagent Blank

FRACTION 05A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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REPORT

LAB # 86-03-021

Results by Sample

SAMPLE ID Reagent Blank

FRACTION 05A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE 2C803016C1B

DATE EXTRACTED 03/03/86

ANALYST

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 03/19/86

INSTRUMENT

COMPOUNDS DETECTED 1

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	3
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Results by Sample

LAB # 86-03-021

Continued From Above

SAMPLE ID Reagent Blank

FRACTION 05A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
4 603 BS1	45-nitrobenzene 91
302 883 BS2	2-fluorobiphenyl 83
1487 BS3	d14-terphenyl 68
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

RADIAN
CORPORATION

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Results by Sample

REPORT

LAB # 86-03-021

Continued From Above

SAMPLE ID Reagent Blank

FRACTION 05A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-03-021

SAMPLE ID Reagent Blank

FRACTION 05A

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

DATA FILE 2CB03021C05
CONC. FACTOR

DATE EXTRACTED 03/03/86
DATE INJECTED 03/19/86

ANALYST MJL

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

RAMBOLD
CORPORATION

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REPORT

Results by Sample

LAB # 86-03-021

Continued From Above

SAMPLE ID Reagent Blank

FRACTION 05A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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REPORT

LAB # 86-03-021

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Results by Sample

SAMPLE ID 860025 H2O VOA Soil

FRACTION 06A

TEST CODE SWB240

NAME GCMS Volatiles - SWB46

Date & Time Collected 02/28/86

Category

DATA FILE 4CU03021V06
CONC. FACTOR 1

DATE INJECTED 03/17/86

ANALYST INSTRUMENT

MM

VERIFIED BY LAK
COMPOUNDS DETECTED 1

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
3V	4V	benzene	ND	17V	32V	1,2-dichloropropane	ND
6V	6V	carbon tetrachloride	ND	18V	33V	cis-1,3-dichloropropylene	ND
7V	7V	chlorobenzene	ND	18V	33V	trans-1,3-dichloropropylene	ND
15V	10V	1,2-dichloroethane	ND	19V	38V	ethylbenzene	ND
27V	11V	1,1,1-trichloroethane	ND	22V	99	methylene chloride	3 BL
4	14V	1,1-dichloroethane	ND	21V	45V	methyl chloride	ND
306	28V	1,1,2-trichloroethane	ND	20V	46V	methyl bromide	ND
	23V	1,1,2,2-tetrachloroethane	ND	5V	47V	bromoform	ND
	9V	chloroethane	ND	12V	48V	dichlorobromomethane	ND
	10V	2-chloroethylvinyl ether	ND	30V	49V	trichlorofluoromethane	ND
	11V	chloroform	ND	8V	51V	chlorodibromomethane	ND
	16V	1,1-dichloroethylene	ND	24V	85V	tetrachloroethylene	ND
	26V	1,2-trans-dichloroethylene	ND	25V	86V	toluene	ND
				29V	87V	trichloroethylene	ND
				31V	88V	vinyl chloride	ND

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Results by Sample

REPORT

LAB # 86-03-021

Continued From Above

SAMPLE ID 860025 H2O VOA Soil

FRACTION 06A

TEST CODE SW8240

NAME GCMS Volatiles - SW846

Date & Time Collected 02/28/86

Category

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
<u>199</u> VS1	d4-1,1-dichloroethane	<u>98</u>
<u>381</u> VS2	d8-toluene	<u>102</u>
<u>471</u> VS3	bromofluorobenzene	<u>92</u>

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/kg unless otherwise specified.
 ND = not detected at detection limit of 10 ug/kg, unless otherwise specified.
 BL = detected in reagent blank; background subtraction not performed.
 J = estimated value; less than method detection limit.
 CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-03-021

SAMPLE ID 860026 VDA Soil

FRACTION 07A

TEST CODE SW8240

NAME GCMS Volatiles - SW846

Date & Time Collected 02/28/86

Category

DATA FILE 4CU03021V0Z
CONC. FACTOR 1

DATE INJECTED 03/17/86

ANALYST
INSTRUMENT F4

VERIFIED BY LAK
COMPOUNDS DETECTED 1

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
3V	4V	benzene	ND	17V	32V	1,2-dichloropropane	ND
6V	6V	carbon tetrachloride	ND	18V	33V	cis-1,3-dichloropropylene	ND
7V	7V	chlorobenzene	ND	18V	33V	trans-1,3-dichloropropylene	ND
15V	10V	1,2-dichloroethane	ND	19V	38V	ethylbenzene	ND
27V	11V	1,1,1-trichloroethane	ND	22V	103	ethylene chloride	2 BL
14V	13V	1,1-dichloroethane	ND	21V	45V	methyl chloride	ND
28V	14V	1,1,2-trichloroethane	ND	20V	46V	methyl bromide	ND
23V	15V	1,1,2,2-tetrachloroethane	ND	5V	47V	bromoform	ND
9V	16V	chloroethane	ND	12V	48V	dichlorobromomethane	ND
10V	19V	2-chloroethylvinyl ether	ND	30V	49V	trichlorofluoromethane	ND
11V	23V	chloroform	ND	8V	51V	chlorodibromomethane	ND
16V	29V	1,1-dichloroethylene	ND	24V	85V	tetrachloroethylene	ND
26V	30V	1,2-trans-dichloroethylene	ND	25V	86V	toluene	ND
				29V	87V	trichloroethylene	ND
				31V	88V	vinyl chloride	ND

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Results by Sample

REPORT

LAB # 86-03-021

Continued From Above

SAMPLE ID 860026 VDA Soil

FRACTION 07A

TEST CODE SWB240

NAME GCMS Volatiles - SWB46

Date & Time Collected 02/28/86

Category

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
<u>201</u> VS1	d4-1,1-dichloroethane	<u>96</u>
<u>382</u> VS2	d8-toluene	<u>101</u>
<u>471</u> VS3	bromofluorobenzene	<u>113</u>

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/kg unless otherwise specified.
 ND = not detected at detection limit of 10 ug/kg, unless otherwise specified.
 BL = detected in reagent blank; background subtraction not performed.
 J = estimated value; less than method detection limit.
 CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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RECEIVED: 03/04/86

Analytical Serv

REPORT

Results by Sample

LAB # 86-03-021

SAMPLE ID Reagent Blank VDA

FRACTION 08A

TEST CODE SW8240

NAME GCMS Volatiles - SW846

Date & Time Collected not specified

Category

DATA FILE 4EB0317V000
CONC. FACTOR 1

DATE INJECTED 03/17/86

ANALYST
INSTRUMENT

MM
F4

VERIFIED BY LAK
COMPOUNDS DETECTED 1

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
3V	4V	benzene	<u>ND</u>	17V	32V	1,2-dichloropropane	<u>ND</u>
6V	6V	carbon tetrachloride	<u>ND</u>	18V	33V	cis-1,3-dichloropropylene	<u>ND</u>
7V	7V	chlorobenzene	<u>ND</u>	18V	33V	trans-1,3-dichloropropylene	<u>ND</u>
15V	10V	1,2-dichloroethane	<u>ND</u>	19V	38V	ethylbenzene	<u>ND</u>
27V	11V	1,1,1-trichloroethane	<u>ND</u>	22V	<u>106</u>	methylene chloride	<u>2</u>
14V	13V	1,1-dichloroethane	<u>ND</u>	21V	45V	methyl chloride	<u>ND</u>
28V	14V	1,1,2-trichloroethane	<u>ND</u>	20V	46V	methyl bromide	<u>ND</u>
23V	15V	1,1,2,2-tetrachloroethane	<u>ND</u>	5V	47V	bromoform	<u>ND</u>
9V	16V	chloroethane	<u>ND</u>	12V	48V	dichlorobromomethane	<u>ND</u>
10V	19V	2-chloroethylvinyl ether	<u>ND</u>	30V	49V	trichlorofluoromethane	<u>ND</u>
11V	23V	chloroform	<u>ND</u>	8V	51V	chlorodibromomethane	<u>ND</u>
16V	29V	1,1-dichloroethylene	<u>ND</u>	24V	85V	tetrachloroethylene	<u>ND</u>
26V	30V	1,2-trans-dichloroethylene	<u>ND</u>	25V	86V	toluene	<u>ND</u>
				29V	87V	trichloroethylene	<u>ND</u>
				31V	88V	vinyl chloride	<u>ND</u>

RADIAN
CORPORATION

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RECEIVED: 03/04/86

Analytical Serv

REPORT

Results by Sample

LAB # 86-03-021

Continued From Above

SAMPLE ID Reagent Blank VOAFRACTION 08ATEST CODE SW8240NAME GCMS Volatiles - SW846Date & Time Collected not specifiedCategory

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
<u>202</u> VS1	d4-1,1-dichloroethane	<u>99</u>
<u>382</u> VS2	d8-toluene	<u>98</u>
<u>471</u> VS3	bromofluorobenzene	<u>92</u>

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 10 ug/kg, unless otherwise specified.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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RECEIVED: 03/04/86

Analytical Serv

REPORT

NonReported Work

LAB # 86-03-021

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B : DUP_NS
02B : DUP_NS
03B : DUP_NS
04B : DUP_NS

Received: 04/10/86

RAS -

Austin

REPORT

Work Order # 86-04-069

REPORT Radian

TO

BL 4

Austin

ATTN Larry French

CLIENT PLANT 4

COMPANY Plant 4, USAF

FACILITY General Dynamics

SAMPLES 3

WORK ID groundwater

TAKEN WJWH

TRANS Fed Ex

TYPE

Q # 212-027-27-40

INV # 8015

PREPARED Radian Analytical Services

BY 8501 Mo-pac Bl

PQ Box 9948

Austin, TX 78751

ATTN

PHONE 512-454-4797

CERTIFIED BY

CONTACT CONOVER

Interference

2nd column confirmation performed on 602 split 02

Duplicate of report of 05/29/86

Footnotes and Comments

* Indicates a value less than 5 times the detection limit.
Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present

SAMPLE IDENTIFICATION

01 860218

02 860219

03 860220

TEST CODES and NAMES used on this report

AG E	Silver, ICPEs
AS G	Arsenic, graphite AA
BA E	Barium, ICPEs
CD E	Cadmium, ICPEs
CR E	Chromium, ICPEs
DG3020	Digestion, method 3020
DG6010	Digestion, method 6010
EPA601	EPA method 601
EPA602	EPA method 602
HC IR	Hydrocarbons
HG C	Mercury, cold vapor
ONG IR	Oil and grease, infrared
PB G	Lead, graphite AA
SE G	Selenium, graphite AA

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 Received: 04/10/86
 RAS - Austin
 Results By Test
 REPORT
 Work Order # 86-04-069

TEST CODE	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)
AG E ug/ml	<.002	0.007*	
AS G ug/ml	<.002	<.002	
BA E ug/ml	0.057	0.041	
CD E ug/ml	<.002	0.003*	
CR E ug/ml	0.013	0.005*	
DG3020 date complete	05/01/86	05/01/86	
DG6010 date complete	05/01/86	05/01/86	
HC IR mg/L			<1
UNG IR mg/L			1*
PB G ug/ml	0.009	0.013	
SE G ug/ml	<.03	<.003	

Received: 04/10/86

HAS - Austin

REPORT

Work Order # 86-04-069

Results by Sample

SAMPLE ID 860218

FRACTION 01A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 04/09/86

Category

ANALYST
INSTRMTRP
C

INJECTD 04/14/86

FILE #

VERIFIED MCL
G
UNITS ug/l

CASH	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.08
74-83-9	Bromomethane	ND	1.18
75-01-4	Vinyl chloride	ND	0.18
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	ND	0.25
75-69-4	Trichlorofluoromethane	ND	ND
75-35-4	1,1-Dichloroethene	ND	0.13
75-34-3	1,1-Dichloroethane	ND	0.07
156-60-5	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	ND	0.05
107-06-2	1,2-Dichloroethane	ND	0.03
71-55-6	1,1,1-Trichloroethane	ND	0.03
56-23-5	Carbon tetrachloride	ND	0.12
75-27-4	Bromodichloromethane	ND	0.10

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Received: 04/10/86

RAS - Austin
Results by Sample

Work Order # 86-04-069
Continued From Above

SAMPLE ID 860218 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/09/86 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.04
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	ND	0.09
79-00-5	1,1,2-Trichloroethane	ND	0.02
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	
75-25-2	Bromoform	ND	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.03
127-18-4	Tetrachloroethene	ND	0.03
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
75-50-1	1,2-Dichlorobenzene	ND	0.15
105-46-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-92-5	Bromochloromethane	97 %	Recovery
3017-95-5	2-Bromo-1-chloropropane	76 %	Recovery
110-54-9	1-4-Dichlorobutane		% Recovery

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Received: 04/10/86
HAS - Austin
Results by Sample
REPORT
Work Order # 86-04-069
Continued From Above

SAMPLE ID 860218
FRACTION 01A
Date & Time Collected 04/09/86
TEST CODE EPA601
NAME EPA method 601
Category

460-00-4 1-Bromo-4-fluorobenzene % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

Work Order # 86-04-069

RAS - Austin
Results by Sample

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Received: 04/10/86

SAMPLE ID 860218
FRACTION 01B TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/09/86 Category

VERIFIED MCL
FILE # D UNITS ug/l

ANALYST RP
INSTRMT D

INJECTED 04/14/86

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.20
108-88-3	Toluene	7.39	0.20
100-41-4	Ethylbenzene	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
106-46-7	1,4-Dichlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.40
95-50-1	1,2-Dichlorobenzene	ND	0.40

SURROGATES
98-08-8 a,a,a-Trifluorotoluene 106% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N/A = not available

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RAS - Austin

REPORT

Work Order # 86-04-069

Received: 04/10/86

Results by Sample

SAMPLE ID 860218

FRACTION 01E

TEST CODE HG C

NAME Mercury, cold vapor

Date & Time Collected 04/09/86

Category

VERIFIED GCL

ANALYST DC

ANALYZED 04/24/86

UNITS ug/ml

ANALYTE RESULT DET LIMIT

Mercury 0002* 0.0002

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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RAS - Austin

REPORT

Work Order # 86-04-069

Results by Sample

SAMPLE ID 860219

FRACTION 02A

TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/09/86

Category

ANALYST RP
INSTRMT GFILE # VERIFIED MCL
G UNITS ug/l

INJECTD 04/14/86

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.08
74-83-9	Bromomethane	ND	1.18
75-01-4	Vinyl chloride	ND	0.18
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	ND	0.25
75-69-4	Trichlorofluoromethane	ND	ND
75-35-4	1,1-Dichloroethene	ND	0.13
75-34-3	1,1-Dichloroethane	ND	0.07
156-60-5	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	ND	0.05
107-06-2	1,2-Dichloroethane	ND	0.03
71-55-6	1,1,1-Trichloroethane	ND	0.03
56-23-5	Carbon tetrachloride	ND	0.12
75-27-4	Bromodichloromethane	ND	0.10

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RAS - Austin

REPORT

Work Order # 86-04-069
Continued From Above

Results by Sample

SAMPLE ID 860219

FRACTION 02A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 04/09/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.04
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	ND	0.09
79-00-5	1,1,2-Trichloroethane	ND	0.02
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	
75-25-2	Bromoform	ND	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.03
127-18-4	Tetrachloroethene	ND	0.03
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24

SURROGATES

74-97-5	Bromochloromethane	111	% Recovery
3017-95-6	2-Bromo-1-chloropropene	66#	% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

File 10
Received: 04/10/86

RAS - Austin

REPORT

Results by Sample

Work Order # 86-04-069
Continued From Above

SAMPLE ID 860219

FRACTION 02A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/09/86

Category

460-00-4 1-Bromo-4-fluorobenzene % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

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RAS - Austin

REPORT
Results by Sample

Work Order # 86-04-069

SAMPLE ID 860219

FRACTION 02B TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/09/86

Category

ANALYST _____ RP _____
INSTRMT _____ D _____
INJECTED 04/14/86
FILE # _____ D _____
UNITS ug/l
VERIFIED _____ MCL

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.20
108-88-3	Toluene	11.1	0.20
100-41-4	Ethylbenzene	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
106-46-7	1,4-Dichlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.40
95-50-1	1,2-Dichlorobenzene	ND	0.40

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 100% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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Received: 04/10/86

RAS - Austin

REPORT
Results by Sample

Work Order # 86-04-069

SAMPLE ID 860219

FRACTION 02E

TEST CODE HG C

NAME Mercury, cold vapor

Date & Time Collected 04/09/86

Category

ANALYST
INSTRMT

DC

ANALYZED 04/24/86

VERIFIED GCL

UNITS ug/ml

ANALYTE RESULT DET LIMIT

Mercury ND 0.0002

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than r times the detection limit

N/A = not available

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Received: 04/10/86

RAS - Austin
Results by Sample

Work Order # 86-04-069

SAMPLE ID 860220

FRACTION 03A

TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/09/86

Category

ANALYST _____ RP _____
INSTRMT _____ G _____
FILE # _____ UNITS _____ ug/l
INJECTD 04/14/86

VERIFIED _____ MCL

RESULT DET LIMIT

COMPOUND

CAS#

74-87-3

Chloromethane

ND

0.08

74-83-9

Bromomethane

ND

1.18

75-01-4

Vinyl chloride

ND

0.18

75-00-3

Chloroethane

ND

0.52

75-09-2

Methylene chloride

ND

0.25

75-69-4

Trichlorofluoromethane

ND

ND

75-35-4

1,1-Dichloroethene

ND

0.13

75-34-3

1,1-Dichloroethane

ND

0.07

156-60-5

trans-1,2-Dichloroethene

ND

0.10

67-66-3

Chloroform

ND

0.05

107-06-2

1,2-Dichloroethane

ND

0.03

71-55-6

1,1,1-Trichloroethane

ND

0.03

56-23-5

Carbon tetrachloride

ND

0.12

75-27-4

Bromodichloromethane

ND

0.10

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RAS - Austin

REPORT
Results by Sample

Work Order # 86-04-069
Continued From Above

SAMPLE ID 860220

FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/09/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.04
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	ND	0.09
79-00-5	1,1,2-Trichloroethane	ND	0.02
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	
75-25-2	Bromoform	ND	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.03
127-18-4	Tetrachloroethene	ND	0.03
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-97-5	Bromochloromethane	139 % Recovery	
3017-95-6	2-Bromo-1-chloropropane	129 % Recovery	
110-56-5	1,4-Dichlorobutane	% Recovery	

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Received: 04/10/86

RAS - Austin

REPORT
Results by Sample

Work Order # 86-04-069
Continued From Above

SAMPLE ID 860220

FRACTION 03A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/09/86

Category

460-00-4 1-Bromo-4-fluorobenzene % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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RAS - Austin
Results by Sample

Work Order # 86-04-069

SAMPLE ID 860220

FRACTION 03B TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/09/86 Category

ANALYST	RP	FILE #	VERIFIED	MCL
INSTRMT	D			
		INJECTED 04/14/86	D	UNITS ug/l
CAS#	COMPOUND	RESULT	DET	LIMIT
71-43-2	Benzene	ND		0.20
108-88-3	Toluene	0.95		0.20
100-41-4	Ethylbenzene	ND		0.20
108-90-7	Chlorobenzene	ND		0.20
106-46-7	1,4-Dichlorobenzene	ND		0.30
541-73-1	1,3-Dichlorobenzene	ND		0.40
95-50-1	1,2-Dichlorobenzene	ND		0.40

SURROGATES
98-08-8 a,a,a-Trifluorotoluene 103% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N/A = not available

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RAS - Austin
NonReported Work

Work Order # 86-04-069

ACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01C	:	SPARE	01D	:	SPARE
02C	:	SPARE	02D	:	SPARE
03C	:	SPARE	03D	:	SPARE

RADIAN
CORPORATION

PAGE 1

RECEIVED: 04/10/86

Analytical Serv

REPORT

09/08/86 12:36:19

LAB # 86-04-070

REPORT Radian Corporation
TO Larry French
Austin, Texas

PREPARED Radian Analytical Services
BY 8501 MoPac Blvd.

P.O. Box 9948

Austin, Texas 78766

CERTIFIED BY

ATTEN

ATTEN

PHONE (512) 454-4797

CONTACT FRENCH

CLIENT PLANT 4 SAMPLES 3
COMPANY General Dynamics
FACILITY DEHL Plant 4, Bldg 4
Austin, Texas

WORK ID US Air Force Radar Range

TAKEN 4/10/86

TRANS Fed Ex 343914255

TYPE H2O

P.O. # 212-027-27-40

INV. # 7848

Duplicate of report of 04/28/86.

Footnotes and Comments

* Indicates a value less than 3 times the detection limit.
Potential error for such low values ranges between
50 and 100%.

4 330

@ Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

SAMPLE IDENTIFICATION

01 860218 H2O
02 860219 H2O
03 Reagent Blank H2O

Analytical Serv TEST CODES and NAMES used on this report

EX 625 Extraction only - 625 BN/A
M625 A Method 625 Acid Compounds
M625 B Method 625 Base/Neutrals
MS 608 Pesticides & PCBs by GC/MS

PAGE 2
RECEIVED: 04/10/86

Analytical Serv
RESULTS BY TEST

LAB # 86-04-070

TEST CODE	Sample 01	Sample 02	Sample 03
default units	(entered units)	(entered units)	(entered units)
EX 625	04/10/86	04/10/86	04/10/86
date complete			

PAGE 3
RECEIVED: 04/10/86

Analytical Serv
Results by Sample

REPORT

LAB # 86-04-070

SAMPLE ID 860218 H20

FRACTION 01A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 04/10/86

Category

DATA FILE 2CU04070C01
CONC. FACTOR 1

DATE EXTRACTED 04/10/86
DATE INJECTED 04/23/86

ANALYST
INSTRUMENT

MM
F2

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
460 AS1	d3-phenol	75%
342 AS2	2-fluorophenol	66%
1093 AS3	2,4,6-tribromophenol	88%
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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RECEIVED: 04/10/86

Analytical Serv

REPORT

Results by Sample

LAB # 86-04-070

Continued From Above

SAMPLE ID 860218 H20

FRACTION 01A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 04/10/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

PAGE 5
RECEIVED: 04/10/86
Analytical Serv
Results by Sample

LAB # 86-04-070

SAMPLE ID 860218 H20
FRACTION 01A
TEST CODE M625 B
NAME Method 625 Base/Neutrals
Date & Time Collected 04/10/86
Category

DATA FILE 2CU04070C01
CONC. FACTOR 1
DATE EXTRACTED 04/10/86
DATE INJECTED 04/23/86
ANALYST INSTRUMENT MM f2
VERIFIED BY LAK
COMPOUNDS DETECTED 2

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B 1646	66B	bis(2-ethylhexyl)phthalate	5
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B 1304	68B	di-butyl phthalate	4
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

RADIAN CORPORATION

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-070
Continued From Above

SAMPLE ID 860218 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/10/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
4 588 BS1	45-nitrobenzene 89%
3 863 BS2	2-fluorobiphenyl 89%
5 1461 BS3	d14-terphenyl 110%
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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REPORT

Results by Sample

LAB # 86-04-070

Continued From Above

SAMPLE ID 860218 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/10/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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CORPORATION

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-070

SAMPLE ID 860218 H20

FRACTION 01A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 04/10/86

Category

DATA FILE 2CU04070C01
CONC. FACTOR

DATE EXTRACTED 04/10/86
DATE INJECTED 04/23/86

ANALYST MM

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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CORPORATION

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SAMPLE ID 860218 H20

Analytical Serv

Results by Sample

REPORT

LAB # 86-04-070

Continued From Above

FRACTION Q1A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 04/10/86

Category _____

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv

Results by Sample

REPORT

LAB # 86-04-070

SAMPLE ID 860219 H2O

FRACTION 02A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 04/10/86

Category

DATA FILE 2CU04070C02

DATE EXTRACTED 04/10/86

ANALYST

MM

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 04/22/86

INSTRUMENT

#2

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

4 339

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
437 AS1	d3-phenol	84%
299 AS2	2-fluorophenol	67%
1094 AS3	2,4,6-tribromophenol	69%
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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CORPORATION

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REPORT

Results by Sample

LAB # 86-04-070

Continued From Above

SAMPLE ID 860219 H2O

FRACTION 02A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 04/10/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Results by Sample

LAB # 86-04-070

SAMPLE ID 860219 H20
FRACTION Q2A
TEST CODE M625 B
NAME Method 625 Base/Neutrals
Date & Time Collected 04/10/86
Category

DATA FILE 2CU04070C02
DATE EXTRACTED 04/10/86
DATE INJECTED 04/22/86
ANALYST INSTRUMENT
VERIFIED BY LAK
COMPOUNDS DETECTED 2

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B 1646	66B	bis(2-ethylhexyl)phthalate	6
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B 1306	68B	di-butyl phthalate	3
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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REPORT

Results by Sample

LAB # 86-04-070

Continued From Above

SAMPLE ID 860219 H20

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/10/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
4 577 BS1	d5-nitrobenzene 110%
342 863 BS2	2-fluorobiphenyl 110%
1462 BS3	d14-terphenyl 120%
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625. (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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CORPORATION

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REPORT

Results by Sample

LAB # 86-04-070

Continued From Above

SAMPLE ID 860219 H2N

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/10/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-070

SAMPLE ID 860219 H20

FRACTION 02A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 04/10/86

Category

DATA FILE 2CU04070C02
CONC. FACTOR

DATE EXTRACTED 04/10/86
DATE INJECTED 04/23/86

ANALYST MM

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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CORPORATION

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REPORT

Results by Sample

LAB # 86-04-070

Continued From Above

SAMPLE ID 860219 H20

FRACTION 02A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 04/10/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-070

SAMPLE ID Reagent Blank H2O

FRACTION 03A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 2CB04064CQ3
CONC. FACTOR 1

DATE EXTRACTED 04/10/86
DATE INJECTED 04/22/86

ANALYST
INSTRUMENT

MM
F2

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
464 AS1	d3-phenol	71%
349 AS2	2-fluorophenol	70%
1094 AS3	2,4,6-tribromophenol	57%
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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CORPORATION

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LAB # 86-04-070

Results by Sample

Continued From Above

SAMPLE ID Reagent Blank H2O

FRACTION 03A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Results by Sample

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LAB # 86-04-070

SAMPLE ID Reagent Blank H2O

FRACTION 03A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE 2CB04064C03
CONC. FACTOR 1

DATE EXTRACTED 04/10/86
DATE INJECTED 04/22/86

ANALYST
INSTRUMENT

MM
#2

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	ND
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Results by Sample

REPORT

LAB # 86-04-070

Continued From Above

SAMPLE ID Reagent Blank H2O

FRACTION 03A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
590 BS1	d5-nitrobenzene 120%
864 BS2	2-fluorobiphenyl 100%
1462 BS3	d14-terphenyl 82%
BS4	d10-biphenyl

4 349

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-04-070

Continued From Above

SAMPLE ID Reagent Blank H20

FRACTION 03A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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 SAMPLE ID Reagent Blank H2O
 Analytical Serv REPORT
Results by Sample
 LAB # 86-04-070
 FRACTION 03A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS
 Date & Time Collected not specified Category

DATA FILE 2CB04064C03 DATE EXTRACTED 04/10/86 ANALYST MM VERIFIED BY LAK
 CONC. FACTOR DATE INJECTED 04/22/86 COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P		aldrin	2P	102P	alpha BHC	ND
10P	90P		dieldrin	3P	103P	beta BHC	ND
6P	91P		chlordane	4P	104P	gamma BHC	ND
7P	92P		4,4'-DDT	5P	105P	delta BHC	ND
8P	93P		4,4'-DDE	18P	106P	PCB-1242	ND
9P	94P		4,4'-DDD	19P	107P	PCB-1254	ND
11P	95P		alpha endosulfan	20P	108P	PCB-1221	ND
12P	96P		beta endosulfan	21P	109P	PCB-1232	ND
14P	97P		endosulfan sulfate	22P	110P	PCB-1248	ND
14P	98P		endrin	23P	111P	PCB-1260	ND
15P	99P		endrin aldehyde	24P	112P	PCB-1016	ND
16P	100P		heptachlor	25P	113P	toxaphene	ND
17P	101P		heptachlor epoxide				

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CORPORATION

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Analytical Serv

REPORT

Results by Sample

LAB # 86-04-070

Continued From Above

SAMPLE ID Reagent Blank H2O

FRACTION Q3A

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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CORPORATION

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Analytical Serv

REPORT

NonReported Work

LAB # 86-04-070

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B : DUP_NS

Received: 04/11/86

RAS -

Austin

REPORT
05/29/86 12:36:11

Work Order # 86-04-084

REPORT Radian

TO Bl. 4

Austin

ATTEN Larry French

CLIENT PLANT 4

COMPANY Plant 4, USAF

FACILITY General Dynamics

SAMPLES 7

WORK ID groundwater

TAKEN WJ, WH

TRANS WJ, WH

TYPE

P. O. # 212-027-27-40

INVOICE under separate cover

PREPARED Radian Analytical Services

BY 8501 Mo-pac Bl.

PO Box 9948

Austin, TX 78751

ATTEN

PHONE 512-454-4797

CONTACT CONOVER

CERTIFIED BY

Carl S. Smith

Interference

-2nd column confirmation performed on 601 splits 03, 04, and 602 splits 01, 02, 03, and 04.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit.

Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	860221
02	860222
03	860223
04	860224
05	860226
06	field blank
07	trip blank

TEST CODES and NAMES used on this report

AG E	Silver, ICPES
AS G	Arsenic, graphite AA
BA E	Barium, ICPES
CD E	Cadmium, ICPES
CR E	Chromium, ICPES
DG3020	Digestion, method 3020
DG6010	Digestion, method 6010
EPA601	EPA method 601
EPA602	EPA method 602
HC IR	Hydrocarbons
HG C	Mercury, cold vapor
ONG IR	Oil and grease, infrared
PB G	Lead, graphite AA
SE G	Selenium, graphite AA

TEST CODE	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
AG E ug/ml	<.002	0.005*	0.011		
AS G ug/ml	<.02	<.002	0.008*		
BA E ug/ml	0.067	0.045	0.093		
CD E ug/ml	0.002*	<.002	0.003*0		
CR E ug/ml	<.005	0.009*	0.015*	0.012*	
DG3020 date complete	05/01/86	05/01/86	05/01/86		
DG6010 date complete	05/01/86	05/01/86	05/01/86	05/01/86	
35HC IR mg/L		<1			<1
35ONG IR mg/L		1*			
PB G ug/ml	0.023	0.003*	0.036		
SE G ug/ml	<.03	0.003*	<.003		

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Results by Sample

REPORT

Work Order # 86-04-084

SAMPLE ID 860221

FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/10/86 Category

ANALYST _____ CL _____
INSTRMT _____ G _____
INJECTD 04/15/86
FILE # _____ VERIFIED _____ MCL _____
UNITS _____ ug/l

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.080
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.18
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	ND	0.25
75-69-4	Trichlorofluoromethane	ND	N/A
75-35-4	1,1-Dichloroethene	ND	0.13
75-34-3	1,1-Dichloroethane	ND	0.070
156-60-5	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.030
56-23-5	Carbon tetrachloride	ND	0.12
75-27-4	Bromodichloromethane	ND	0.10

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Results by Sample

Work Order # 86-04-084
Continued From Above

SAMPLE ID 860221

FRACTION 01A TEST CODE EPA601
Date & Time Collected 04/10/86

NAME EPA method 601
Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	ND	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	ND	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24

SURROGATES

74-97-5	Bromochloromethane	98 % Recovery
3017-95-6	2-Bromo-1-chloropropane	78# % Recovery
110-56-5	1-4-Dichlorobutane	% Recovery

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REPORT

Results by Sample

Work Order # 86-04-084
Continued From Above

SAMPLE ID 860221

FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/10/86

Category _____

460-00-4

1-Bromo-4-fluorobenzene

% Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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 Results by Sample
 REPORT
 Work Order # 86-04-084

SAMPLE ID 860221
 FRACTION 01B
 TEST CODE EPA602
 NAME EPA method 602
 Date & Time Collected 04/10/86
 Category

ANALYST _____
 INSTRMT _____
 FILE # _____
 INJECTED 04/14/86
 VERIFIED _____
 MCL
 UNITS ug/l

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.20
108-88-3	Toluene	11.7	0.20
100-41-4	Ethylbenzene	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
106-46-7	1,4-Dichlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.40
95-50-1	1,2-Dichlorobenzene	ND	0.40

SURROGATES
 98-08-8 a,a,a-Trifluorotoluene 106% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
 DET LIMIT = DETECTION LIMIT
 ND = not detected at detection limit
 NA = not analyzed
 * = less than 5 times the detection limit
 N/A = not available

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REPORT

Work Order # 86-04-084

Received: 04/11/86

Results by Sample

SAMPLE ID 860221

FRACTION O1C TEST CODE HG C NAME Mercury, cold vapor

Date & Time Collected 04/10/86 Category

VERIFIED GCL

ANALYST INSTRMT DC ANALYZED 04/24/86 UNITS ug/ml

ANALYTE RESULT DET LIMIT

Mercury ND 0.0002

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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REPORT

Results by Sample

Work Order # 86-04-084

SAMPLE ID 860222

FRACTION 02A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/10/86

Category

ANALYST _____
INSTRMT _____

FILE # _____
VERIFIED _____
G MCL
UNITS _____
ug/l

INJECTD 04/14/86

RESULT DET LIMIT

COMPOUND

CAS#

74-87-3

Chloromethane

ND

0.08

74-83-9

Bromomethane

ND

1.18

75-01-4

Vinyl chloride

ND

0.18

75-00-3

Chloroethane

ND

0.52

75-09-2

Methylene chloride

ND

0.25

75-69-4

Trichlorofluoromethane

ND

ND

75-35-4

1,1-Dichloroethene

ND

0.13

75-34-3

1,1-Dichloroethane

ND

0.07

156-60-5

trans-1,2-Dichloroethene

ND

0.10

67-66-3

Chloroform

ND

0.05

107-06-2

1,2-Dichloroethane

ND

0.03

71-55-6

1,1,1-Trichloroethane

ND

0.03

56-23-5

Carbon tetrachloride

ND

0.12

75-27-4

Bromodichloromethane

ND

0.10

SAMPLE ID 860222

FRACTION 02A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 04/10/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.04
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	ND	0.09
79-00-5	1,1,2-Trichloroethane	ND	0.02
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	
75-25-2	Bromoform	ND	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.03
127-18-4	Tetrachloroethene	ND	0.03
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-97-5	Bromochloromethane	103	% Recovery
3017-95-6	2-Bromo-1-chloropropane	119	% Recovery
110 56-5	1-4-Dichlorobutane		% Recovery

AD-A190 444

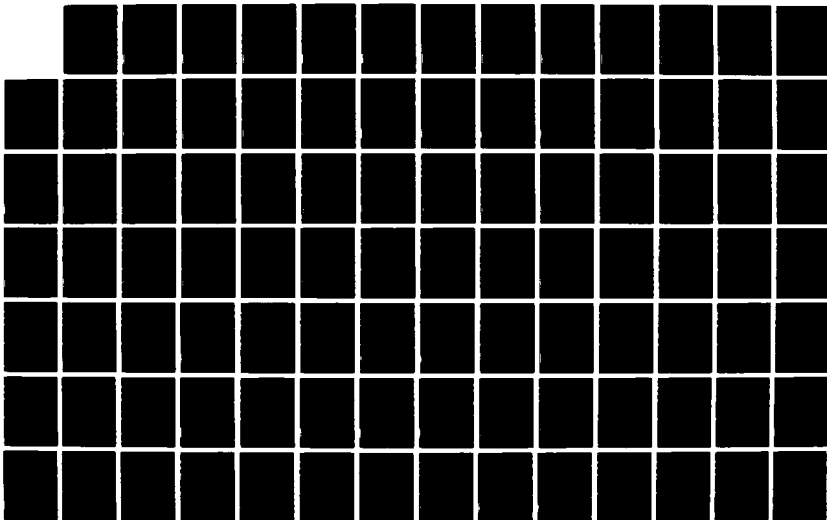
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CONFIRMATION/QUANTIFICATION STAG. (U) RADIAN CORP
AUSTIN TX DEC 87 F33615-83-D-4801

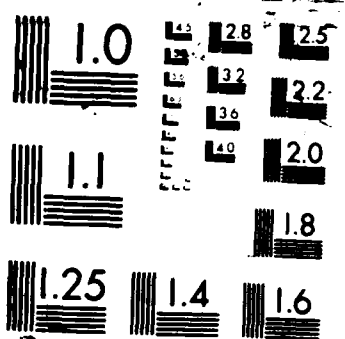
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SAMPLE ID 860222
FRACTION 02A
TEST CODE EPA601
NAME EPA method 601
Date & Time Collected 04/10/86
Category

460-00-4 1-Bromo-4-fluorobenzene % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N/A= not available

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Work Order # 86-04-084

SAMPLE ID 860222
FRACTION 02B
TEST CODE EPA602
NAME EPA method 602
Date & Time Collected 04/10/86
Category

ANALYST INSTRMT RP
D
FILE # D
INJECTED 04/14/86
VERIFIED MCL
UNITS ug/l

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.20
108-88-3	Toluene	0.74	0.20
100-41-4	Ethylbenzene	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
106-46-7	1,4-Dichlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.40
95-50-1	1,2-Dichlorobenzene	ND	0.40

SURROGATES
98-08-8 a,a,a-Trifluorotoluene 103% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
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N/A = not available

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Results by Sample
REPORT
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SAMPLE ID 860222
FRACTION 02C
TEST CODE HG C
NAME Mercury, cold vapor
Date & Time Collected 04/10/86
Category

ANALYST _____
INSTRMT _____
ANALYZED 04/24/86
ANALYTE RESULT DET LIMIT
Mercury 0.0020 0.0002
VERIFIED GCL
UNITS ug/ml

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N/A = not available

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REPORT

Work Order # 86-04-084

Results by Sample

SAMPLE ID 860223

FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/10/86 Category

ANALYST INSTRMT RP
G

INJECTD 04/15/86

FILE # VERIFIED MCL
 G UNITS ug/l

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.08
74-83-9	Bromomethane	ND	1.18
75-01-4	Vinyl chloride	20.4	0.18
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	ND	0.25
75-69-4	Trichlorofluoromethane	ND	ND
75-35-4	1,1-Dichloroethene	ND	0.13
75-34-3	1,1-Dichloroethane	ND	0.07
156-60-5	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	ND	0.05
107-06-2	1,2-Dichloroethane	ND	0.03
71-55-6	1,1,1-Trichloroethane	ND	0.03
56-23-5	Carbon tetrachloride	ND	0.12
75-27-4	Bromodichloromethane	ND	0.10

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SAMPLE ID 860223

FRACTION Q3A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 04/10/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.04
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	46.3	0.12
124-48-1	Dibromochloromethane	ND	0.02
79-00-5	1,1,2-Trichloroethane	ND	0.02
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	
75-25-2	Bromoform	ND	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.03
127-18-4	Tetrachloroethene	ND	0.03
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-97-5	Bromochloromethane	105	% Recovery
3017-95-6	2-Bromo-1-chloropropene	114	% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

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Results by Sample

Work Order # 86-04-084
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SAMPLE ID 860223

FRACTION 03A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/10/86

Category _____

460-00-4

1-Bromo-4-fluorobenzene

% Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

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Work Order # 86-04-084

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Results by Sample

SAMPLE ID 860223

FRACTION 03B TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/10/86

Category

VERIFIED MCL

ANALYST CL FILE # D UNITS ug/l
INSTRMT D

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.20
108-88-3	Toluene	20.7	0.20
100-41-4	Ethylbenzene	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
106-46-7	1,4-Dichlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.40
95-50-1	1,2-Dichlorobenzene	ND	0.40

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 93% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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 RAS - Austin
 Results by Sample

Work Order # 86-04-084

REPORT

SAMPLE ID 860223

FRACTION Q3C TEST CODE HG C NAME Mercury, cold vapor
 Date & Time Collected 04/10/86 Category

ANALYST _____
 INSTRMT _____

VERIFIED GCL

UNITS ug/ml

ANALYZED 04/24/86

ANALYTE RESULT DET LIMIT

Mercury .0004* 0.0002

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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Results by Sample

Work Order # 86-04-084

SAMPLE ID 860224

FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/10/86 Category

ANALYST _____
INSTRMT _____

INJECTD 04/15/86

FILE # _____
VERIFIED _____
G MCL
UNITS ug/l

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	40
74-83-9	Bromomethane	ND	590
75-01-4	Vinyl chloride	ND	90
75-00-3	Chloroethane	ND	260
75-09-2	Methylene chloride	ND	130
75-69-4	Trichlorofluoromethane	ND	ND
75-35-4	1,1-Dichloroethene	ND	65
75-34-3	1,1-Dichloroethane	ND	40
156-60-5	trans-1,2-Dichloroethene	ND	50
67-66-3	Chloroform	ND	30
107-06-2	1,2-Dichloroethane	ND	20
71-55-6	1,1,1-Trichloroethane	ND	20
56-23-5	Carbon tetrachloride	ND	60
75-27-4	Bromodichloromethane	ND	50

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Results by Sample

Work Order # 86-04-084
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SAMPLE ID 860224

FRACTION 04A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 04/10/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	170
79-01-6	Trichloroethene	5508	60
124-48-1	Dibromochloromethane	ND	50
79-00-5	1,1,2-Trichloroethane	ND	10
10061-01-5	cis-1,3-Dichloropropene	ND	100
110-75-8	2-Chloroethylvinyl ether	ND	
75-25-2	Bromoform	ND	100
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-90-7	Chlorobenzene	ND	130
541-73-1	1,3-Dichlorobenzene	ND	160
95-50-1	1,2-Dichlorobenzene	ND	75
106-46-7	1,4-Dichlorobenzene	ND	120

SURROGATES

74-97-5	Bromochloromethane	119 % Recovery
3017-95-6	2-Bromo-1-chloropropane	137# % Recovery
110-56-5	1-4-Dichlorobutane	% Recovery

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Results by Sample

Work Order # 86-04-084
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SAMPLE ID 860224

FRACTION 04A TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 04/10/86

Category

460-00-4

1-Bromo-4-fluorobenzene

% Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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Results by Sample
REPORT
Work Order # 86-04-084

SAMPLE ID 860224
FRACTION 04B
Date & Time Collected 04/10/86
TEST CODE EPA602
NAME EPA method 602
Category

ANALYST _____
INSTRMT _____
CL
D
INJECTED 04/15/86
FILE # _____
D
UNITS _____
ug/l
VERIFIED _____
MCL

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.20
108-88-3	Toluene	ND	0.20
100-41-4	Ethylbenzene	ND	0.20
108-90-7	Chlorobenzene	17.7	0.20
106-46-7	1,4-Dichlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.40
95-50-1	1,2-Dichlorobenzene	ND	0.40

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 106% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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Results by Sample

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Work Order # 86-04-084

SAMPLE ID field blank

FRACTION 06A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified

Category

ANALYST _____ RP _____
INSTRMT _____ G _____
INJECTD 04/15/86
FILE # _____ UNITS _____ ug/l
VERIFIED _____ MCL _____

CAS#

COMPOUND

RESULT

DET LIMIT

74-87-3

Chloromethane

ND

0.08

74-83-9

Bromomethane

ND

1.18

75-01-4

Vinyl chloride

ND

0.18

75-00-3

Chloroethane

ND

0.52

75-09-2

Methylene chloride

0.38

0.25

75-69-4

Trichlorofluoromethane

0.38

ND

75-35-4

1,1-Dichloroethene

ND

0.13

75-34-3

1,1-Dichloroethane

ND

0.07

156-60-5

trans-1,2-Dichloroethene

ND

0.10

67-66-3

Chloroform

ND

0.05

107-06-2

1,2-Dichloroethane

ND

0.03

71-55-6

1,1,1-Trichloroethane

ND

0.03

56-23-5

Carbon tetrachloride

ND

0.12

75-27-4

Bromodichloromethane

ND

0.10

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Results by Sample

REPORT

Work Order # 86-04-084
Continued From Above

SAMPLE ID field blank

FRACTION 06A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.04
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	ND	0.09
79-00-5	1,1,2-Trichloroethane	ND	0.02
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	
75-25-2	Bromoform	ND	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.03
127-18-4	Tetrachloroethene	ND	0.03
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-97-5	Bromochloromethane	109	% Recovery
3017-95-6	2-Bromo-1-chloropropene	104	% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

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SAMPLE ID field blank
FRACTION 06A
TEST CODE EPA601
NAME EPA method 601
Date & Time Collected not specified
Category

460-00-4 1-Bromo-4-fluorobenzene % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N/A = not available

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REPORT

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Results by Sample

SAMPLE ID field blank

FRACTION 06B TEST CODE EPA602 NAME EPA method 602

Date & Time Collected not specified

Category

ANALYST _____ CL _____
INSTRMT _____ D _____

VERIFIED _____ MCL _____

FILE # _____ D _____
UNITS _____ ug/l

COMPOUND RESULT DET LIMIT

CAS#

Benzene _____ ND _____ 0.20

71-43-2

Toluene _____ 0.99 _____ 0.20

108-88-3

Ethylbenzene _____ ND _____ 0.20

100-41-4

Chlorobenzene _____ ND _____ 0.20

108-90-7

1,4-Dichlorobenzene _____ ND _____ 0.30

106-46-7

1,3-Dichlorobenzene _____ ND _____ 0.40

541-73-1

1,2-Dichlorobenzene _____ ND _____ 0.40

95-50-1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene _____ 99% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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RAS - Austin

REPORT

Work Order # 86-04-084

Received: 04/11/86

Results by Sample

SAMPLE ID trip blank

FRACTION 07A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified

Category

ANALYST _____ RP _____
INSTRMT _____ G _____
FILE # _____
INJECTD 04/15/86
VERIFIED _____ MCL
G
UNITS _____ ug/l

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.08
74-83-9	Bromomethane	ND	1.18
75-01-4	Vinyl chloride	ND	0.18
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	ND	0.25
75-69-4	Trichlorofluoromethane	ND	ND
75-35-4	1,1-Dichloroethene	ND	0.13
75-34-3	1,1-Dichloroethane	ND	0.07
156-60-5	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	ND	0.05
107-06-2	1,2-Dichloroethane	ND	0.03
71-55-6	1,1,1-Trichloroethane	ND	0.03
56-23-5	Carbon tetrachloride	ND	0.12
75-27-4	Bromodichloromethane	ND	0.10

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RAS - Austin
Results by Sample

Work Order # 86-04-084
Continued From Above

SAMPLE ID trip blank FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.04
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	ND	0.09
79-00-5	1,1,2-Trichloroethane	ND	0.02
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	
75-25-2	Bromoform	ND	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.03
127-18-4	Tetrachloroethene	ND	0.03
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24

SURROGATES

74-97-5	Bromochloromethane	103 % Recovery
3017-95-6	2-Bromo-1-chloropropane	118 % Recovery
110-56-5	1-4-Dichlorobutane	% Recovery

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RAS - Austin

REPORT

Results by Sample

Work Order # 86-04-084

Continued From Above

SAMPLE ID trip blank

FRACTION 07A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified

Category

460-00-4

1-Bromo-4-fluorobenzene

% Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

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 Received: 04/11/86
 RAS - Austin
 Results by Sample
 REPORT
 Work Order # 86-04-084
 SAMPLE ID trip blank
 FRACTION 07B
 TEST CODE EPA602
 NAME EPA method 602
 Date & Time Collected not specified
 Category

ANALYST _____ CL _____
 INSTRMT _____ D _____
 INJECTED 04/15/86
 FILE # _____ D _____
 UNITS _____ ug/l
 VERIFIED _____ MCL

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.20
108-88-3	Toluene	0.53	0.20
100-41-4	Ethylbenzene	ND	0.20
108-90-7	Chlorobenzene	ND	0.20
106-46-7	1,4-Dichlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.40
95-50-1	1,2-Dichlorobenzene	ND	0.40

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 103% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

PAGE 1

RECEIVED: 04/12/86

Analytical Serv

REPORT

09/09/86 10:40:54

LAB # 86-04-085

REPORT Radian Corporation
TO Larry French
Austin, Texas

PREPARED Radian Analytical Services
BY 8501 MoPac Blvd.

P.O. Box 9948
Austin, Texas 78766

CERTIFIED BY

ATTEN

PHONE (512) 454-4797

CONTACT FRENCH

CLIENT PLANT 4 SAMPLES 3
COMPANY General Dynamics
FACILITY DEHL Plant 4, Bldg 4
Austin, Texas

WORK ID Ground Water
TAKEN 4/10/86 Johnson/W. Hise
TRANS Fed Ex 736761401
TYPE H2O
P.O. # 212-027-27-40
INV. # 8103

Duplicate of report of 06/20/86.

Footnotes and Comments

* Indicates a value less than 3 times the detection limit.
Potential error for such low values ranges between
50 and 100%.

@ Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

SAMPLE IDENTIFICATION

- 01 860223 H2O
- 02 860221 H2O
- 03 860221 DUP Analysis H2O
- 04 860223 Matrix Spike H2O
- 04 Method Spike H2O
- 05 Reagent Blank H2O

Analytical Serv TEST CODES and NAMES used on this report

- EX 625 Extraction only - 625 BN/A
- M625 A Method 625 Acid Compounds
- M625 B Method 625 Base/Neutrals
- MS 608 Pesticides & PCBs by GC/MS

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 Analytical Serv
 RESULTS BY TEST
 REPORT
 LAB # 86-04-085

TEST CODE	Sample 01	Sample 02	Sample 03	Sample 04	Sample 05
default units	(entered units)	(entered units)	(entered units)	(entered units)	(entered units)
EX 625	04/14/86	04/14/86	04/14/86	04/14/86	04/14/86
date complete				04/14/86	

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Analytical Serv REPORT
Results by Sample

LAB # 86-04-085

SAMPLE ID 860223 H20

FRACTION 01A TEST CODE M625 A NAME Method 625 Acid Compounds
Date & Time Collected 04/10/86 Category

DATA FILE 2CU04083C01 DATE EXTRACTED 04/14/86 ANALYST HJL VERIFIED BY LAK
CONC. FACTOR 1 DATE INJECTED 04/22/86 INSTRUMENT F2 COMPOUNDS DETECTED 1

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	453 65A	phenol	2
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
451 AS1	d5-phenol	92
333 AS2	2-fluorophenol	32
1093 AS3	2,4,6-tribromophenol	59
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-04-085

Continued From Above

SAMPLE ID 860223 H20

FRACTION 01A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 04/10/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-04-085

SAMPLE ID 860223 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/10/86

Category

DATA FILE	2CU04085C01	DATE EXTRACTED	04/14/86	ANALYST	MJL	VERIFIED BY	LAK
CONC. FACTOR	1	DATE INJECTED	04/22/86	INSTRUMENT	f2	COMPOUNDS DETECTED	2
NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B 1642	66B	bis(2-ethylhexyl)phthalate	16
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B 1304	68B	di-butyl phthalate	3 BL
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-085
Continued From Above

SAMPLE ID 860223 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/10/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>583</u> BS1	d5-nitrobenzene <u>97</u>
<u>862</u> BS2	2-fluorobiphenyl <u>84</u>
<u>1460</u> BS3	d14-terphenyl <u>44</u>
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-04-085

Continued From Above

SAMPLE ID 860223 H20

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/1v/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-04-085

SAMPLE ID 860223 H20

FRACTION 01A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 04/10/86

Category

DATA FILE 2CU04085C01
CONC. FACTOR

DATE EXTRACTED 04/14/86
DATE INJECTED 04/22/86

ANALYST WJL

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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REPORT

Results by Sample

LAB # 86-04-085

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SAMPLE ID 860223 H20

FRACTION 01A TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 04/10/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Results by Sample

REPORT

LAB # 86-04-085

SAMPLE ID 860221 H20

FRACTION 02A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 04/10/86

Category

DATA FILE 2CU04085C02
CONC. FACTOR 1

DATE EXTRACTED 04/14/86
DATE INJECTED 04/24/86

ANALYST
INSTRUMENT

MJL
f2

VERIFIED BY LAK
COMPOUNDS DETECTED Q

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
457 AS1	d5-phenol	82
337 AS2	2-fluorophenol	78
1091 AS3	2,4,6-tribromophenol	65
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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Analytical Serv

REPORT

LAB # 86-04-085

Results by Sample Continued From Above

SAMPLE ID 860221 H2O

FRACTION 02A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected 04/10/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-04-085

SAMPLE ID 860221 H2O

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/10/86

Category

DATA FILE 2CU04083C02
CONC. FACTOR 1

DATE EXTRACTED 04/14/86
DATE INJECTED 04/24/86

ANALYST
INSTRUMENT

WJL
f2

VERIFIED BY LAK
COMPOUNDS DETECTED 2

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B 1642	66B	bis(2-ethylhexyl)phthalate	5
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B 1302	68B	di-butyl phthalate	12 BL
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Analytical Serv

REPORT

Results by Sample

LAB # 86-04-085

Continued From Above

SAMPLE ID 860221 H20

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/10/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>585</u> BS1	d5-nitrobenzene <u>77</u>
<u>861</u> BS2	2-fluorobiphenyl <u>78</u>
<u>1459</u> BS3	d14-terphenyl <u>58</u>
BS4	d10-biphenyl

4 395

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

RAIDMAN
CORPORATION

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Analytical Serv

Results by Sample

REPORT

LAB # 86-04-085

Continued From Above

SAMPLE ID 860221 H20

FRACTION 02A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected 04/10/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-04-085

SAMPLE ID 860221 H20

FRACTION 02A

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected 04/10/86

Category

DATA FILE 2CU04085C02
CONC. FACTOR

DATE EXTRACTED 04/14/86
DATE INJECTED 04/24/86

ANALYST MJL

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Analytical Serv

REPORT

LAB # 86-04-085

Results by Sample

Continued From Above

SAMPLE ID 860221 H20

FRACTION 02A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 04/10/86

Category _____

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-085

SAMPLE ID B60221 DUP Analysis H20

FRACTION 03A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 2GDO4085C03

DATE EXTRACTED 04/14/86

ANALYST

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 04/24/86

INSTRUMENT

COMPOUNDS DETECTED 1

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	452 65A	phenol	2
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
<u>456</u> AS1	45-phenol	<u>80</u>
<u>335</u> AS2	2-fluorophenol	<u>81</u>
<u>1092</u> AS3	2,4,6-tribromophenol	<u>78</u>
AS4	43-phenol	<u> </u>

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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REPORT

LAB # 86-04-085

Results by Sample

Continued From Above

SAMPLE ID 860221 DUP Analysis H2O

FRACTION 03A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

LAB # 86-04-085

RECEIVED: 04/12/86

Results by Sample

SAMPLE ID 860221 DUP Analysis H2O

FRACTION 03A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE 2CD04085C03
CONC. FACTOR 1

DATE EXTRACTED 04/14/86
DATE INJECTED 04/24/86

ANALYST
INSTRUMENT

WJL
f2
VERIFIED BY LAK
COMPOUNDS DETECTED 2

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B 1643	66B	bis(2-ethylhexyl)phthalate	4
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B 1303	68B	di-butyl phthalate	3 BL
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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REPORT

Results by Sample

LAB # 86-04-085

Continued From Above

SAMPLE ID 860221 DUP Analysis H2O

FRACTION Q3A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
4 585 BS1	d5-nitrobenzene 107
402 862 BS2	2-fluorobiphenyl 94
1459 BS3	d14-terphenyl 61
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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REPORT

Results by Sample

LAB # 86-04-085

Continued From Above

SAMPLE ID 860221 DUP Analysis H20

FRACTION Q3A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-085

SAMPLE ID 860221 DUP Analysis H20

FRACTION 03A

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

DATA FILE 2CD04085C03
CONC. FACTOR

DATE EXTRACTED 04/14/86
DATE INJECTED 04/24/86

ANALYST MJL

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

RADIAN
CORPORATION

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REPORT

Results by Sample

LAB # 86-04-085

Continued From Above

SAMPLE ID 860221 DUP Analysis H20

FRACTION 03A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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REPORT

Results by Sample

LAB # 86-04-085

SAMPLE ID 860223 Matrix Spike H20

FRACTION 04A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 2CM04085C03

CONC. FACTOR 1

DATE EXTRACTED 04/14/86

DATE INJECTED 04/24/86

ANALYST

INSTRUMENT

WJL

f2

VERIFIED BY LAK

COMPOUNDS DETECTED 11

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A 848	21A	2,4,6-trichlorophenol	115	7A 986	58A	4-nitrophenol	145
8A 779	22A	4-chloro-3-methylphenol	105	5A 976	59A	2,4-dinitrophenol	130
1A 475	24A	2-chlorophenol	99	4A 1065	60A	2-methyl-4,6-dinitrophenol	147
2A 670	31A	2,4-dichlorophenol	105	9A 1179	64A	pentachlorophenol	139
3A 642	34A	2,4-dimethylphenol	61	10A 456	65A	phenol	80
6A 635	57A	2-nitrophenol	105				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
454 AS1	d5-phenol	83
331 AS2	2-fluorophenol	83
1092 AS3	2,4,6-tribromophenol	95
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in % unless otherwise specified.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-04-085

Continued From Above

SAMPLE ID 860223 Matrix Spike H2O

FRACTION Q4A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Results by Sample

LAB # 86-04-085

SAMPLE ID 860223 Matrix Spike H2O

FRACTION 04A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE 2CM04083C03		DATE EXTRACTED 04/14/86		ANALYST		HJL		VERIFIED BY LAK	
CONC. FACTOR 1		DATE INJECTED 04/24/86		INSTRUMENT		#2		COMPOUNDS DETECTED 46	
NPDES SCAN	EPA	COMPOUND	RESULT	NPDES	SCAN	EPA	COMPOUND	RESULT	
1B	972	1B	acenaphthene	86	41B	177	61B	N-nitrosodimethylamine	123
4B	1416	5B	benzidine	38	43B	1071	62B	N-nitrosodiphenylamine	106
46B	684	8B	1,2,4-trichlorobenzene	91	42B	366	63B	N-nitrosodi-n-propylamine	100
33B	1152	9B	hexachlorobenzene	93	13B	1643	66B	bis(2-ethylhexyl)phthalate	81
36B	576	12B	hexachloroethane	94	15B	1544	67B	butyl benzyl phthalate	47
11B	468	18B	bis(2-chloroethyl)ether	88	26B	1303	68B	di-n-butyl phthalate	69
16B	876	20B	2-chloronaphthalene	82	29B	1763	69B	di-n-octyl phthalate	78
20B	530	25B	1,2-dichlorobenzene	86	24B	1043	70B	diethyl phthalate	81
21B	496	26B	1,3-dichlorobenzene	86	25B	931	71B	dimethyl phthalate	59
22B	503	27B	1,4-dichlorobenzene	82	5B	1628	72B	benzo(a)anthracene A	87
23B	1625	28B	3,3'-dichlorobenzidine	131	6B	1938	73B	benzo(a)pyrene	98
27B	1001	35B	2,4-dinitrotoluene	111	7B	1851	74B	benzo(b)fluoranthene *	90
28B	940	36B	2,6-dinitrotoluene	110	9B	1838	75B	benzo(k)fluoranthene *	90
29B	37B	37B	1,2-diphenylhydrazine	NA	18B	1636	76B	chrysene A	83
31B	1396	39B	fluoranthene	79	2B	942	77B	acenaphthylene	73
17B	1052	40B	4-chlorophenyl phenyl ether	103	3B	1211	78B	anthracene B	90

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Results by Sample

REPORT

LAB # 86-04-085

Continued From Above

SAMPLE ID 860223 Matrix Spike H2O

FRACTION 04A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	112B	41B	4-bromophenyl phenyl ether	108	88	2466	79B	benzo(ghi)perylene	106
12B	547	42B	bis(2-chloroisopropyl)ether	101	32B	1051	80B	fluorene	80
10B	657	43B	bis(2-chloroethoxy)methane	86	44B	1204	81B	phenanthrene B	77
34B	723	52B	hexachlorobutadiene	90	19B	2357	82B	dibenzo(a,h)anthracene	108
35B	837	53B	hexachlorocyclopentadiene	3	37B	2343	83B	indeno(1,2,3-cd)pyrene	107
38B	622	54B	isophorone	78	45B	1432	84B	pyrene	74
39B	693	55B	naphthalene	71					
40B	587	56B	nitrobenzene	86					

SURROGATE RECOVERIES

SCAN CODE	RESULT
584 BS1	d5-nitrobenzene 117
861 BS2	2-fluorobiphenyl 103
1458 BS3	d14-terphenyl 54
BS4	d10-biphenyl

4 409

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in % unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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REPORT

Results by Sample

LAB # 86-04-085

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SAMPLE ID 860223 Matrix Spike H20

FRACTION 04A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank, background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-085

SAMPLE ID Method Spike H20

FRACTION 04B

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 2CM04127C01
CONC. FACTOR 1

DATE EXTRACTED 04/22/86
DATE INJECTED 04/28/86

ANALYST
INSTRUMENT

WJL
F2

VERIFIED BY LAK
COMPOUNDS DETECTED 11

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	848	21A	2,4,6-trichlorophenol	104	7A	986	58A
8A	779	22A	4-chloro-3-methylphenol	93	5A	976	59A
1A	475	24A	2-chlorophenol	93	4A	1066	60A
2A	670	31A	2,4-dichlorophenol	99	9A	1180	64A
3A	642	34A	2,4-dimethylphenol	49	10A	454	65A
6A	635	57A	2-nitrophenol	92			

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
454 AS1	45-phenol	76
331 AS2	2-fluorophenol	80
1092 AS3	2,4,6-tribromophenol	87
AS4	43-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in % unless otherwise specified.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-04-085

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SAMPLE ID Method Spike H2O

FRACTION 04B

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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RECEIVED: 04/12/86

Analytical Serv

REPORT

Results by Sample

LAB # 86-04-085

SAMPLE ID Method Spike H2O

FRACTION 04B

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE 2CM04127C01
CONC. FACTOR 1DATE EXTRACTED 04/22/86
DATE INJECTED 04/28/86ANALYST
INSTRUMENTM/L
#2VERIFIED BY LAK
COMPOUNDS DETECTED 44

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT		
1B	942	1B	acenaphthene	67	41B	176	61B	N-nitrosodimethylamine	92
4B	1417	5B	benzidine	102	43B	1071	62B	N-nitrosodiphenylamine	104
46B	685	8B	1,2,4-trichlorobenzene	65	42B	566	63B	N-nitrosodi-n-propylamine	73
33B	1153	9B	hexachlorobenzene	93	13B	1643	66B	bis(2-ethylhexyl)phthalate	95
36B	576	12B	hexachloroethane	33	15B	1544	67B	butyl benzyl phthalate	44
11B	468	18B	bis(2-chloroethyl)ether	70	26B	1303	68B	di-butyl phthalate	63
16B	876	20B	2-chloronaphthalene	79	29B	1762	69B	di-n-octyl phthalate	87
20B	530	25B	1,2-dichlorobenzene	43	24B	1043	70B	diethyl phthalate	50
21B	496	26B	1,3-dichlorobenzene	37	25B	931	71B	dimethyl phthalate	21
22B	503	27B	1,4-dichlorobenzene	39	5B	1628	72B	benzo(a)anthracene A	93
23B	1625	28B	3,3'-dichlorobenzidine	128	6B	1939	73B	benzo(a)pyrene	91
27B	1001	35B	2,4-dinitrotoluene	107	7B	1852	74B	benzo(b)fluoranthene *	96
28B	940	36B	2,6-dinitrotoluene	104	9B	1857	75B	benzo(k)fluoranthene *	87
29B		37B	1,2-diphenylhydrazine	ND	18B	1635	76B	chrysene A	89
31B	1397	39B	fluoranthene	81	2B	972	77B	acenaphthylene	83
17B	1052	40B	4-chlorophenyl phenyl ether	88	3B	1211	78B	anthracene B	96

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Results by Sample

REPORT

LAB # 86-04-085

Continued From Above

SAMPLE ID Method Spike H2O

FRACTION 04B

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	1129	41B	4-bromophenyl phenyl ether	97	88	2467	79B	benzo(ghi)perylene	100
12B	547	42B	bis(2-chloroisopropyl)ether	67	32B	1052	80B	fluorene	80
10B	637	43B	bis(2-chloroethoxy)methane	73	44B	1204	81B	phenanthrene B	79
34B	723	52B	hexachlorobutadiene	56	19B	2356	82B	dibenzo(a,h)anthracene	96
35B		53B	hexachlorocyclopentadiene	ND	37B	2346	83B	indeno(1,2,3-cd)pyrene	99
38B	622	54B	isophorone	74	45B	1433	84B	pyrene	85
39B	693	55B	naphthalene	58					
40B	587	56B	nitrobenzene	74					

SURROGATE RECOVERIES

SCAN CODE	RESULT
584 BS1	d5-nitrobenzene 91
861 BS2	2-fluorobiphenyl 70
1459 BS3	d14-terphenyl 52
BS4	d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in % unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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CORPORATION

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REPORT

Results by Sample

LAB # 86-04-085

Continued From Above

SAMPLE ID Method Spike H2O

FRACTION 04B

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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REPORT

Results by Sample

LAB # 86-04-085

SAMPLE ID Reagent Blank H2O

FRACTION 05A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 2CB04085C03

DATE EXTRACTED 04/14/86

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 04/24/86

ANALYST

WJL

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
458 AS1	45-phenol	83
338 AS2	2-fluorophenol	83
1093 AS3	2,4,6-tribromophenol	75
AS4	43-phenol	

4 416

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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Results by Sample

REPORT

LAB # 86-04-085

Continued From Above

SAMPLE ID Reagent Blank H2O

FRACTION 05A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-085

SAMPLE ID Reagent Blank H2O

FRACTION 05A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	6
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Results by Sample

REPORT

LAB # 86-04-085

Continued From Above

SAMPLE ID Reagent Blank H2O

FRACTION 05A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category _____

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>586</u> BS1	d5-nitrobenzene <u>118</u>
<u>863</u> BS2	2-fluorobiphenyl <u>104</u>
<u>1461</u> BS3	d14-terphenyl <u>52</u>
BS4	d10-biphenyl _____

4 419

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Analytical Serv

Results by Sample

REPORT

LAB # 86-04-085

Continued From Above

SAMPLE ID Reagent Blank H2O

FRACTION 05A

TEST CODE M625 B NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv

REPORT

LAB # 86-04-085

Results by Sample

SAMPLE ID Reagent Blank H2O

FRACTION 05A

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

DATA FILE 2CBQ4085C03

DATE EXTRACTED 04/14/86

ANALYST MJL

VERIFIED BY LAK

CONC. FACTOR

DATE INJECTED 04/24/86

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

**MACDONALD
CORPORATION**

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Analytical Serv

REPORT

LAB # 86-04-085

Results by Sample

Continued From Above

SAMPLE ID Reagent Blank H2O

FRACTION 05A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

RADIATION
CORPORATION

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REPORT

LAB # 86-04-085

NonReported Work

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B : DUP_NS
02B : DUP_NS

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Analytical Serv

REPORT

LAB # 86-04-135

09/08/86 12:39:02

REPORT Radian Corporation
TO Larry French
Austin, Texas

PREPARED Radian Analytical Services
BY 8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

CERTIFIED BY

ATTEN

PHONE (512) 434-4797

CONTACT FRENCH

CLIENT PLANT 4 SAMPLES 3
COMPANY General Dynamics
FACILITY DEHL Plant 4, Bldg 4
Austin, Texas

WORK ID General Dynamics 625
TAKEN 4/18/86
TRANS Fed Ex 736764856
TYPE H2O
P.O. # 212-027-27-40
INV. # 8062

Duplicate of report of 06/12/86.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit.
Potential error for such low values ranges between
50 and 100%.

2 Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

SAMPLE IDENTIFICATION

01 P-23 860225 H2O BNA
02 HM-101 860228 H2O BNA
03 Reagent Blank H2O

Analytical Serv TEST CODES and NAMES used on this report

EX 625 Extraction only - 625 BNA
M625 A Method 625 Acid Compounds
M625 B Method 625 Base/Neutrals
MS 608 Pesticides & PCBs by GC/MS

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Analytical Serv
RESULTS BY TEST
REPORT
LAB # 86-04-135

TEST CODE	Sample 01	Sample 02	Sample 03
default units	(entered units)	(entered units)	(entered units)
EX 625	04/23/86	04/23/86	04/23/86
date complete			

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-135

SAMPLE ID P-23 860225 H2O BNA

FRACTION 01A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 04/18/86

Category

DATA FILE 2CU04135C01
CONC. FACTOR 1

DATE EXTRACTED 04/23/86
DATE INJECTED 04/28/86

ANALYST
INSTRUMENT

MM
f2

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	5A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
587 AS1	d5-phenol	86%
862 AS2	2-fluorophenol	82%
1092 AS3	2,4,6-tribromophenol	35%
AS4	d3-phenol	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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RECEIVED: 04/23/86

Analytical Serv

REPORT

Results by Sample

LAB # 86-04-135

Continued From Above

SAMPLE ID P-23 860225 H2O BNA

FRACTION 01A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 04/18/86

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-04-135

SAMPLE ID P-23 860225 H2O BNA
FRACTION 01A
TEST CODE M625 B
NAME Method 625 Base/Neutrals
Date & Time Collected 04/18/86
Category

DATA FILE 2CU04135C01
DATE EXTRACTED 04/23/86
DATE INJECTED 04/28/86
ANALYST
INSTRUMENT
MM
f2
VERIFIED BY LAK
COMPOUNDS DETECTED 2

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B 1644	66B	bis(2-ethylhexyl)phthalate	3
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B 1304	68B	di-butyl phthalate	3 BL
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Analytical Serv

REPORT

Results by Sample

LAB # 86-04-135

Continued From Above

SAMPLE ID P-23 860225 H2O BNA

FRACTION 01A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/18/86

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>387</u> BS1	d5-nitrobenzene <u>86%</u>
<u>862</u> BS2	2-fluorobiphenyl <u>82%</u>
<u>1460</u> BS3	d14-terphenyl <u>35%</u>
BS4	d10-biphenyl

4 429

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-04-135

Continued From Above

SAMPLE ID P-23 860225 H2O BNA

FRACTION 01A TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/18/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-04-135

SAMPLE ID P-23 860225 H20 BNA
FRACTION 01A
TEST CODE MS 608
NAME Pesticides & PCBs by GC/MS
Date & Time Collected 04/18/86
Category

DATA FILE 2CU04135C01
CONC. FACTOR
DATE EXTRACTED 04/23/86
DATE INJECTED 04/28/86
ANALYST
VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Analytical Serv REPORT
Results by Sample

LAB # 86-04-135
Continued From Above

SAMPLE ID P-23 860225 H2O BNA FRACTION 01A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS
Date & Time Collected 04/18/86 Category _____

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-135

SAMPLE ID HM-101 860228 H2O BNA

FRACTION 02A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 04/18/86

Category

DATA FILE 2CU04135C03
CONC. FACTOR 1

DATE EXTRACTED 04/23/86
DATE INJECTED 04/28/86

ANALYST MM
INSTRUMENT F2

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	<u>ND</u>	7A	58A	4-nitrophenol	<u>ND</u>
8A	22A	4-chloro-3-methylphenol	<u>ND</u>	5A	59A	2,4-dinitrophenol	<u>ND</u>
4 1A	24A	2-chlorophenol	<u>ND</u>	4A	60A	2-methyl-4,6-dinitrophenol	<u>ND</u>
4 2A	31A	2,4-dichlorophenol	<u>ND</u>	9A	64A	pentachlorophenol	<u>ND</u>
4 3A	34A	2,4-dimethylphenol	<u>ND</u>	10A	65A	phenol	<u>ND</u>
6A	57A	2-nitrophenol	<u>ND</u>				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
<u>460</u> AS1	d5-phenol	<u>63%</u>
<u>343</u> AS2	2-fluorophenol	<u>79%</u>
<u>1091</u> AS3	2,4,6-tribromophenol	<u>78%</u>
AS4	d3-phenol	<u> </u>

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/l unless otherwise specified.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-04-135

Continued From Above

SAMPLE ID HM-101 860228 H2O BNA

FRACTION 02A

TEST CODE M625 A

NAME Method 625 Acid Compounds

Date & Time Collected 04/18/86

Category _____

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

Analytical Serv

REPORT

LAB # 86-04-135

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Results by Sample

SAMPLE ID HM-101 860228 H2O BNA

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/18/86

Category

DATA FILE 2CU04135C03

DATE EXTRACTED 04/23/86

ANALYST

MM

VERIFIED BY LAK

CONC. FACTOR 1

DATE INJECTED 04/28/86

f2

COMPOUNDS DETECTED 2

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B 1642	66B	bis(2-ethylhexyl)phthalate	4
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B 1302	68B	di-butyl phthalate	4 BL
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Analytical Serv
Results by Sample
REPORT
LAB # 86-04-135
Continued From Above

SAMPLE ID HW-101 860228 H2O BNA FRACTION 02A TEST CODE M625 B NAME Method 625 Base/Neutrals
Date & Time Collected 04/18/86 Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
<u>587</u> BS1	d5-nitrobenzene <u>63%</u>
<u>861</u> BS2	2-fluorobiphenyl <u>79%</u>
<u>1458</u> BS3	d14-terphenyl <u>37%</u>
BS4	d10-biphenyl

4 436

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-04-135

Continued From Above

SAMPLE ID HM-101 860228 H2O BNA

FRACTION 02A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected 04/18/86

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

LAB # 86-04-135

SAMPLE ID HM-101 860228 H2O BNA

FRACTION 02A

TEST CODE MS 608

NAME Pesticides & PCBs by GC/MS

Date & Time Collected 04/18/86

Category

DATA FILE 2CU04135C03

DATE EXTRACTED 04/23/86

ANALYST MM

VERIFIED BY LAK

CONC. FACTOR

DATE INJECTED 04/28/86

MM

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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Analytical Serv

REPORT

LAB # 86-04-135

Results by Sample

Continued From Above

SAMPLE ID HM-101 860228 H2O BNA

FRACTION 02A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected 04/18/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-135

SAMPLE ID Reagent Blank H2O

FRACTION 03A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

DATA FILE 2CB04135C03
CONC. FACTOR 1

DATE EXTRACTED 04/23/86
DATE INJECTED 04/28/86

ANALYST
INSTRUMENT f2

VERIFIED BY LAK
COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
11A	21A	2,4,6-trichlorophenol	ND	7A	58A	4-nitrophenol	ND
8A	22A	4-chloro-3-methylphenol	ND	3A	59A	2,4-dinitrophenol	ND
1A	24A	2-chlorophenol	ND	4A	60A	2-methyl-4,6-dinitrophenol	ND
2A	31A	2,4-dichlorophenol	ND	9A	64A	pentachlorophenol	ND
3A	34A	2,4-dimethylphenol	ND	10A	65A	phenol	ND
6A	57A	2-nitrophenol	ND				

SURROGATE RECOVERIES

SCAN CODE	COMPOUND	RESULT
<u>461</u> AS1	d3-phenol	<u>69%</u>
<u>345</u> AS2	2-fluorophenol	<u>67%</u>
<u>1091</u> AS3	2,4,6-tribromophenol	<u>52%</u>
AS4	d3-phenol	<u> </u>

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.

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Analytical Serv

REPORT

Results by Sample

LAB # 86-04-135

Continued From Above

SAMPLE ID Reagent Blank H2O

FRACTION 03A

TEST CODE M625 A NAME Method 625 Acid Compounds

Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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Analytical Serv
Results by Sample

REPORT

LAB # 86-04-135

SAMPLE ID Reagent Blank H2O

FRACTION Q3A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

DATA FILE	2CB04135CQ3	DATE EXTRACTED	04/23/86	ANALYST	MM	VERIFIED BY	LAK
CONC. FACTOR	1	DATE INJECTED	04/28/86	INSTRUMENT	f2	COMPOUNDS DETECTED	1
NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1B	1B	acenaphthene	ND	41B	61B	N-nitrosodimethylamine	ND
4B	5B	benzidine	ND	43B	62B	N-nitrosodiphenylamine	ND
46B	8B	1,2,4-trichlorobenzene	ND	42B	63B	N-nitrosodi-n-propylamine	ND
33B	9B	hexachlorobenzene	ND	13B	66B	bis(2-ethylhexyl)phthalate	ND
36B	12B	hexachloroethane	ND	15B	67B	butyl benzyl phthalate	ND
11B	18B	bis(2-chloroethyl)ether	ND	26B	68B	di-butyl phthalate	4
16B	20B	2-chloronaphthalene	ND	29B	69B	di-n-octyl phthalate	ND
20B	25B	1,2-dichlorobenzene	ND	24B	70B	diethyl phthalate	ND
21B	26B	1,3-dichlorobenzene	ND	25B	71B	dimethyl phthalate	ND
22B	27B	1,4-dichlorobenzene	ND	5B	72B	benzo(a)anthracene A	ND
23B	28B	3,3'-dichlorobenzidine	ND	6B	73B	benzo(a)pyrene	ND
27B	35B	2,4-dinitrotoluene	ND	7B	74B	benzo(b)fluoranthene *	ND
28B	36B	2,6-dinitrotoluene	ND	9B	75B	benzo(k)fluoranthene *	ND
29B	37B	1,2-diphenylhydrazine	ND	18B	76B	chrysene A	ND
31B	39B	fluoranthene	ND	2B	77B	acenaphthylene	ND
17B	40B	4-chlorophenyl phenyl ether	ND	3B	78B	anthracene B	ND

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Analytical Serv

REPORT

Results by Sample

LAB # 86-04-135

Continued From Above

SAMPLE ID Reagent Blank H2O

FRACTION 03A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

14B	41B	4-bromophenyl phenyl ether	ND	8B	79B	benzo(ghi)perylene	ND
12B	42B	bis(2-chloroisopropyl)ether	ND	32B	80B	fluorene	ND
10B	43B	bis(2-chloroethoxy)methane	ND	44B	81B	phenanthrene B	ND
34B	52B	hexachlorobutadiene	ND	19B	82B	dibenzo(a,h)anthracene	ND
35B	53B	hexachlorocyclopentadiene	ND	37B	83B	indeno(1,2,3-cd)pyrene	ND
38B	54B	isophorone	ND	45B	84B	pyrene	ND
39B	55B	naphthalene	ND				
40B	56B	nitrobenzene	ND				

SURROGATE RECOVERIES

SCAN CODE	RESULT
58B BS1	45-nitrobenzene 78%
861 BS2	2-fluorobiphenyl 78%
1459 BS3	d14-terphenyl 37%
BS4	d10-biphenyl

4 443

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
 All results reported in ug/l unless otherwise specified.
 ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).
 * = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.
 A = benzo(a)anthracene and chrysene co-elute in high concentrations.

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Analytical Serv

REPORT

LAB # 86-04-135

Results by Sample

Continued From Above

SAMPLE ID Reagent Blank H2O

FRACTION Q3A

TEST CODE M625 B

NAME Method 625 Base/Neutrals

Date & Time Collected not specified

Category

B = anthracene and phenanthrene co-elute in high concentrations.

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: Indicates dilution of sample if greater than one (1). Minimum detection limits should be multiplied by conc. factor.

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RECEIVED 04/23/86

Analytical Serv
Results by Sample

REPORT

LAB # 86-04-135

SAMPLE 10 Reagent Blank H2O

FRACTION 03A

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

DATA FILE 2CB04135C03

DATE EXTRACTED 04/23/86

ANALYST MM

VERIFIED BY LAK

CONC. FACTOR

DATE INJECTED 04/28/86

COMPOUNDS DETECTED 0

NPDES SCAN	EPA	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	RESULT
1P	89P	aldrin	ND	2P	102P	alpha BHC	ND
10P	90P	dieldrin	ND	3P	103P	beta BHC	ND
6P	91P	chlordane	ND	4P	104P	gamma BHC	ND
7P	92P	4,4'-DDT	ND	5P	105P	delta BHC	ND
8P	93P	4,4'-DDE	ND	18P	106P	PCB-1242	ND
9P	94P	4,4'-DDD	ND	19P	107P	PCB-1254	ND
11P	95P	alpha endosulfan	ND	20P	108P	PCB-1221	ND
12P	96P	beta endosulfan	ND	21P	109P	PCB-1232	ND
14P	97P	endosulfan sulfate	ND	22P	110P	PCB-1248	ND
14P	98P	endrin	ND	23P	111P	PCB-1260	ND
15P	99P	endrin aldehyde	ND	24P	112P	PCB-1016	ND
16P	100P	heptachlor	ND	25P	113P	toxaphene	ND
17P	101P	heptachlor epoxide	ND				

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CORPORATION

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Analytical Serv

REPORT

Results by Sample

LAB # 86-04-135

Continued From Above

SAMPLE ID Reagent Blank H20

FRACTION 03A

TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS

Date & Time Collected not specified

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

REPORT Radian
TO B1 4
Austin
ATTN Larry French
CLIENT PLANT4
COMPANY Plant 4, USAF
FACILITY General Dynamics

SAMPLES 3

WORK ID 2 samples
TAKEN
TRANS
TYPE
P O. # 212-027-27-40
INVOICE under separate cover

PREPARED Radian Analytical Services
BY 8501 Mo-pac Bl.
PO Box 9748
Austin, TX 78751
ATTN
PHONE 512-454-4797

[Signature]
CERTIFIED BY
CONTACT CONDOVER

#-Sample was diluted 1:10 and respiked due to poor analytical spike recovery. The resulting recovery was not within acceptable limits, indicating matrix interference.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 860225
02 860228
03 trip blank

TEST CODES and NAMES used on this report

AG E	Silver, ICPEs
AS G	Arsenic, graphite AA
BA E	Barium, ICPEs
CD E	Cadmium, ICPEs
CR E	Chromium, ICPEs
DG3020	Digestion, method 3020
DG6010	Digestion, method 6010
EPA601	EPA method 601
EPA602	EPA method 602
HG C	Mercury, cold vapor
PB G	Lead, graphite AA
SE G	Selenium, graphite AA

Received: 04/25/86

Results By Test

TEST CODE	Sample 01	Sample 02
default units	(entered units)	(entered units)
AG_E	0.010*	0.130
ug/ml		
AS_G	0.015	<.02
ug/ml		
BA_E	0.060	0.26
ug/ml		
CD_E	<.002	<.020
ug/ml		
CR_E	0.015*	0.24*
ug/ml		
DG3020	05/09/86	05/09/86
date complete		
DG6010	05/09/86	05/09/86
date complete		
PB_G	0.023	0.044
ug/ml		
SE_G	<.03#	<.003
ug/ml		

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RAS - Austin
Results by Sample

Work Order # 86-04-164

SAMPLE ID 860225

FRACTION 01B

TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/18/86

Category

ANALYST _____ INSTRMT _____ RP _____
FILE # _____ UNITS _____ MCL _____
INJECTD 04/28/86

RESULT DET LIMIT

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.080
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.18
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	ND	0.25
75-69-4	Trichlorofluoromethane	ND	N/A
75-35-4	1,1-Dichloroethene	ND	0.13
75-34-3	1,1-Dichloroethane	ND	0.070
156-60-5	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.030
56-23-5	Carbon tetrachloride	ND	0.12
75-27-4	Bromodichloromethane	ND	0.10

Received: 04/25/86

RAS - Austin

REPORT

Results by Sample

 Work Order # 86-04-164
 Continued From Above

SAMPLE ID 860225

FRACTION 01B

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 04/18/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	ND	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	ND	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-97-5	Bromochloromethane	105 % Recovery	
3017-95-6	2-Bromo-1-chloropropene	% Recovery	
110-56-5	1-4-Dichlorobutane	% Recovery	

RADIAN
CORPORATION

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RAS - Austin

REPORT

Work Order # 86-04-164

Results by Sample

Continued From Above

SAMPLE ID 860225

FRACTION 01B TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 04/18/86

Category

460-00-4

1-Bromo-4-fluorobenzene

% Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

RADIAN CORPORATION

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RAS - Austin

REPORT

Work Order # 86-04-164

Received: 04/25/86

Results by Sample

SAMPLE ID 860225

FRACTION 01C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/18/86 Category

VERIFIED MCL

ANALYST INSTRMT CL D FILE # D UNITS ug/l

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	7.02	0.2
100-41-4	Ethylbenzene	1.16	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 102% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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RAS - Austin
Results by Sample
REPORT

Work Order # 86-04-164

SAMPLE ID 860225
FRACTION 01A
Date & Time Collected 04/18/86
TEST CODE HG C
NAME Mercury, cold vapor
Category

ANALYST _____
INSTRMT _____
DES 403
ANALYZED 05/14/86
VERIFIED GCL
UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00020

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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RAS - Austin
Results by Sample

REPORT

Work Order # 86-04-164

SAMPLE ID 860228

FRACTION 02B TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/18/86 Category

ANALYST	RP	FILE #	VERIFIED	MCL
INSTRMT	G		G	ug/l
		INJECTD 04/28/86		
CAS#	COMPOUND	RESULT	DET LIMIT	
74-87-3	Chloromethane	ND	0.080	
74-83-9	Bromomethane	ND	1.2	
75-01-4	Vinyl chloride	ND	0.18	
75-00-3	Chloroethane	ND	0.52	
75-09-2	Methylene chloride	ND	0.25	
75-69-4	Trichlorofluoromethane	ND	N/A	
75-35-4	1,1-Dichloroethene	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.070	
156-60-5	trans-1,2-Dichloroethene	ND	0.10	
67-66-3	Chloroform	ND	0.050	
107-06-2	1,2-Dichloroethane	ND	0.030	
71-55-6	1,1,1-Trichloroethane	ND	0.030	
56-23-5	Carbon tetrachloride	ND	0.12	
75-27-4	Bromodichloromethane	ND	0.10	

SAMPLE ID 860228

FRACTION 02B

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 04/18/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	ND	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	ND	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-97-5	Bromochloromethane	111	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN
CORPORATION

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RAS - Austin

REPORT

Results by Sample

Work Order # 86-04-164
Continued From Above

SAMPLE ID 860228

FRACTION 02B

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 04/18/86

Category

460-00-4

1-Bromo-4-fluorobenzene

% Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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REPORT

Work Order # 86-04-164

Results by Sample

SAMPLE ID 860228

FRACTION 02C

TEST CODE EPA602

NAME EPA method 602

Date & Time Collected 04/18/86

Category

ANALYST	RP	FILE #	D	VERIFIED	MCL
INSTRMT	D	INJECTED	04/28/86	UNITS	ug/l

COMPOUND RESULT DET LIMIT

CAS#	71-43-2	Benzene	ND	0.2
	108-88-3	Toluene	ND	0.2
	100-41-4	Ethylbenzene	ND	0.2
	108-90-7	Chlorobenzene	ND	0.2
	106-46-7	1,4-Dichlorobenzene	ND	0.3
	541-73-1	1,3-Dichlorobenzene	ND	0.4
	95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	98% recovery
---------	------------------------	--------------

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

KRADIAN CORPORATION

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RAS - Austin

REPORT

Work Order # 86-04-164

Received: 04/25/86

Results by Sample

SAMPLE ID 860228

FRACTION 02A TEST CODE HG C NAME Mercury, cold vapor

Date & Time Collected 04/18/86 Category

VERIFIED GCL

ANALYST DES
INSTRMT 403

ANALYZED 05/14/86 UNITS ug/ml

ANALYTE RESULT DET LIMIT

Mercury ND 0.00020

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

AD-A190 444

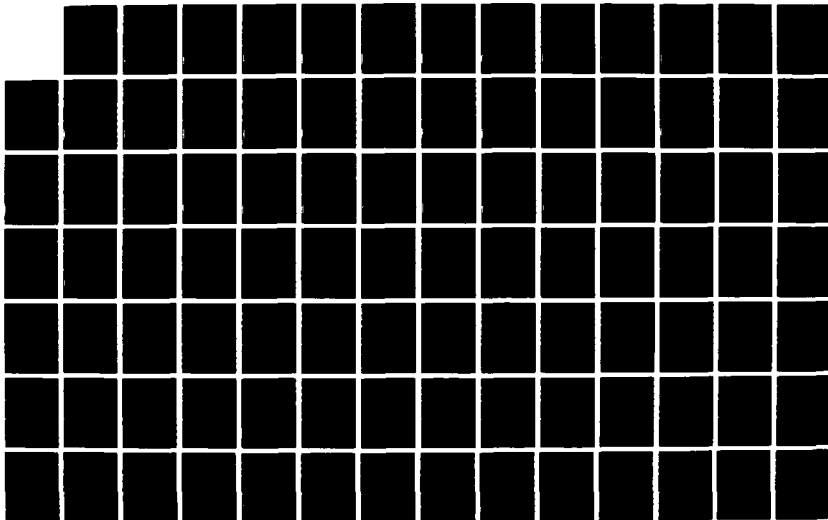
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CONFIRMATION/QUANTIFICATION STAG. (U) RADIAN CORP
AUSTIN TX DEC 87 F33615-83-D-4801

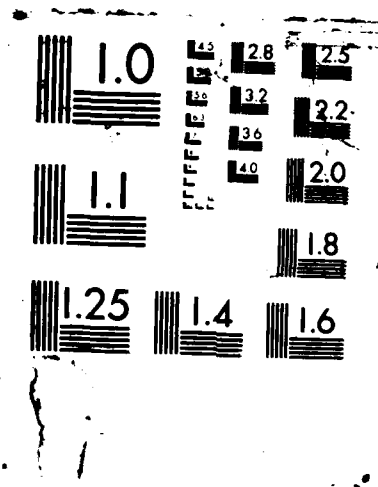
6/7

UNCLASSIFIED

F/G 24/7

NL





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RAS - Austin
Results by Sample

REPORT

Work Order # 86-04-164

SAMPLE ID trip blank

FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

ANALYST INSTRMT	RP G	INJECTD 04/28/86	FILE #	VERIFIED G	MCL ug/l
CAS#	COMPOUND	RESULT	DET LIMIT		
74-87-3	Chloromethane	ND	0.080		
74-83-9	Bromomethane	ND	1.2		
75-01-4	Vinyl chloride	ND	0.18		
75-00-3	Chloroethane	ND	0.52		
75-09-2	Methylene chloride	ND	0.25		
75-69-4	Trichlorofluoromethane	ND	N/A		
75-35-4	1,1-Dichloroethene	ND	0.13		
75-34-3	1,1-Dichloroethane	ND	0.070		
156-60-5	trans-1,2-Dichloroethene	ND	0.10		
67-66-3	Chloroform	ND	0.050		
107-06-2	1,2-Dichloroethane	ND	0.030		
71-55-6	1,1,1-Trichloroethane	ND	0.030		
56-23-5	Carbon tetrachloride	ND	0.12		
75-27-4	Bromodichloromethane	ND	0.10		

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 Received: 04/25/86

 RAS - Austin
 Results by Sample

 Work Order # 86-04-164
 Continued From Above

SAMPLE ID trip blank

FRACTION 03A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	ND	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	ND	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-97-5	Bromochloromethane	98	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

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RAS - Austin

REPORT

Results by Sample

Work Order # 86-04-164

Continued From Above

SAMPLE ID trip blank

FRACTION 03A

TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified

Category

460-00-4

1-Bromo-4-fluorobenzene

% Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

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REPORT

Results by Sample

Work Order # 86-04-164

SAMPLE ID trip blank

FRACTION 03B TEST CODE EPA602 NAME EPA method 602

Date & Time Collected not specified

Category

ANALYST INSTRMT RP D FILE # D UNITS ug/l VERIFIED MCL

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	ND	0.2
100-41-4	Ethylbenzene	ND	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES
98-08-8 a,a,a-Trifluorotoluene 102% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N/A = not available

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01D : SPARE 01E : SPARE
02D : SPARE 02E : SPARE

Page 1

Received: 08/23/86

RAS Sacramento

REPORT

Work Order # S6-08-034

09/15/86 15:26:48

REPORT Radian
TO B1.4
Austin

PREPARED Radian Analytical Services
BY 8501 Mo-pac Bl.
PO Box 9948
Austin, TX 78751

ATTEN: Larry French

ATTEN
PHONE 512-454-4797

CLIENT PLANT 4
COMPANY Plant 4, USAF
FACILITY General Dynamics

SAMPLES 6

WORK ID Ground water
TAKEN 8/21/86 W. Johnson
TRANS Federal 1906220147
TYPE H2O
P.O. # 212-027-27-40
INVOICE under separate cover

4 464

SAMPLE IDENTIFICATION

01 860257
02 860259
03 860259
04 860260
05 860261
06 Method Spike BNA
06 Reagent Blank BNA

TEST CODES and NAMES used on this report

CL 625 Semivolatile Organics H2O
EX BNA Semivolatiles extraction
MS 608 Pesticides by GC/MS

Lucia Peterson
CERTIFIED BY

CONTACT CONOVER

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Received: 08/23/86
RAS Sacramento
Results By Test
REPORT
Work Order # 56-08-034

TEST CODE	Sample 01	Sample 02	Sample 03	Sample 04	Sample 05
default units	(entered units)	(entered units)	(entered units)	(entered units)	(entered units)
EX_BNA	08/25/86	08/25/86	08/25/86	08/25/86	08/25/86
date completed					

TEST CODE	Sample 06
default units	(entered units)
EX_BNA	08/25/86
date completed	08/25/86

Received: 08/23/86

RAS Sacramento

REPORT

Work Order # S6-08-034

Results By Test

SAMPLE		Test: EX BNA
Sample Id		date completed
860257	01	08/25/86
860258	02	08/25/86
860259	03	08/25/86
860260	04	08/25/86
860261	05	08/25/86
Method Spike BN	06	08/25/86

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RAS Sacramento

REPORT

Results by Sample

Work Order # 56-08-034

SAMPLE ID 860257

SAMPLE # 01 FRACTIONS: A

Date & Time Collected 08/21/86

Category

EX_BNA 08/25/86

date completed

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Received: 08/23/86
SAMPLE ID 860257

RAS Sacramento
Results by Sample

REPORT
FRACTION Q1A TEST CODE CL 625 NAME Semivolatiles Organics H20
Date & Time Collected 08/21/86 Category

Work Order # S6-08-034

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE COMPOUNDS

ANALYST INSTRMT SAL INJECTD 09/05/86 EXTRCTD 08/25/86 FILE # 5CU08034C01 UNITS ug/l VERIFIED LAK

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	10
	108-95-2	phenol	ND	1.5
	62-53-3	aniline	ND	10
	111-44-4	bis(2-chloroethyl) ether	ND	5.7
	95-57-8	2-chlorophenol	ND	3.3
	541-73-1	1,3-dichlorobenzene	ND	1.9
	106-46-7	1,4-dichlorobenzene	ND	4.4
	100-51-6	benzyl alcohol	ND	50
	95-50-1	1,2-dichlorobenzene	ND	1.9
	95-48-7	2-methylphenol	ND	10
	108-60-1	bis(2-chloroisopropyl) ether	ND	5.7
	106-44-5	4-methylphenol	ND	10
	621-64-7	n-nitroso-di-n-propylamine	ND	12
	67-72-1	hexachloroethane	ND	1.6
	98-95-3	nitrobenzene	ND	1.9
	78-59-1	isophorone	ND	2.2
	88-75-5	2-nitrophenol	ND	3.6
	105-67-9	2,4-dimethylphenol	ND	2.7
	65-85-0	benzoic acid	ND	50
	111-91-1	bis(2-chloroethoxy)methane	ND	5.3
	120-83-2	2,4-dichlorophenol	ND	2.7
	120-82-1	1,2,4-trichlorobenzene	ND	1.9
	91-20-3	naphthalene	ND	1.6
	106-47-8	4-chloroaniline	ND	10
	87-68-3	hexachlorobutadiene	ND	0.90
	59-50-7	4-chloro-3-methylphenol	ND	3.0
	91-57-6	2-methylnapalene	ND	10

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RAS Sacramento

REPORT

Results by Sample

 Work Order # S6-08-034
 Continued From Above

SAMPLE ID 860257

FRACTION Q1A

TEST CODE CL 625

NAME Semivolatile Organics H20

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	6.0
	88-06-2	2,4,6-trichlorophenol	ND	2.7
	95-95-4	2,4,5-trichlorophenol	ND	10
	91-58-7	2-chloronaphthalene	ND	1.9
	88-74-4	2-nitroaniline	ND	50
	131-11-3	dimethyl phthalate	ND	1.6
	208-96-8	acenaphthylene	ND	3.5
	99-09-2	3-nitroaniline	ND	50
	83-32-9	acenaphthene	ND	1.9
	51-28-5	2,4-dinitrophenol	ND	42
	100-02-7	4-nitrophenol	ND	2.4
	132-64-9	dibenzofuran	ND	10
	606-20-2	2,6-dinitrotoluene	ND	1.9
	121-14-2	2,4-dinitrotoluene	ND	5.7
	84-66-2	diethylphthalate	ND	1.9
	7005-72-3	4-chlorophenyl-phenylether	ND	4.2
	86-73-7	fluorene	ND	1.9
	100-01-06	4-nitroaniline	ND	50
	534-52-1	4,6-dinitro-2-methylphenol	ND	24
	86-30-6	n-nitrosodiphenylamine	ND	1.9
	101-55-3	4-bromophenyl-phenylether	ND	1.9
	118-74-1	hexachlorobenzene	ND	1.9
	87-86-5	pentachlorophenol	ND	3.6
	85-01-8	phenanthrene	ND	5.4
	120-12-7	anthracene	ND	1.9
	84-74-2	di-n-butylphthalate	ND	2.5
	206-44-0	fluoranthene	ND	2.2
	92-87-5	benzidine	ND	44
	129-00-0	pyrene	ND	1.9
	85-68-7	butylbenzylphthalate	ND	2.5
	91-94-1	3,3'-dichlorobenzidine	ND	17
	56-55-3	benzo(a)anthracene	ND	7.8
1661	117-81-7	bis(2-ethylhexyl)phthalate	4	2.5

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Results by Sample

REPORT

Work Order # 56-08-034
Continued From Above

SAMPLE ID 860257

FRACTION Q1A

TEST CODE CL 625

NAME Semivolatile Organics H20

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	218-01-9	chrysene	ND	2.5
	117-84-0	di-n-octyl phthalate	ND	2.5
	205-99-2	benzo(b)fluoranthene	ND	4.8
	207-08-9	benzo(k)fluoranthene	ND	2.5
	50-32-8	benzo(a)pyrene	ND	2.5
	193-39-5	indeno(1,2,3-cd)pyrene	ND	3.7
	53-70-3	dibenz(a,h)anthracene	ND	2.5
	191-24-2	benzo(ghi)perylene	ND	4.1

4 470

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
364	2-fluorophenol	36 %
484	d5-phenol	42 %
612	d5-nitrobenzene	46 %
884	2-fluorobiphenyl	52 %
1112	2,4,6-tribromophenol	52 %
1474	d14-terphenyl	59 %

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

N/A = not available.

BL = detected in Reagent Blank; background subtraction not performed.

J = estimated value less than detection limit.

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REPORT

Work Order # S6-08-034

Received: 08/23/86

Results by Sample

SAMPLE ID 860257

FRACTION 01A TEST CODE MS 608 NAME Pesticides by GC/MS

Date & Time Collected 08/21/86

Category

ORGANICS ANALYSIS DATA SHEET
PESTICIDESANALYST _____ SAL _____
INSTRMT _____ 5100 _____
EXTRCTD 08/25/86 FILE # 5CU08034C01 VERIFIED LAK
INJECTD 09/05/86 UNITS ug/l

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
319-84-6		alpha-BHC	ND	3.0
319-85-7		beta-BHC	ND	5.0
58-89-9		gamma-BHC (lindane)	ND	4.0
319-86-8		delta-BHC	ND	4.0
76-44-8		heptachlor	ND	1.9
309-00-2		aldrin	ND	1.9
1024-57-3		heptachlor epoxide	ND	2.2
959-98-8		endosulfan I	ND	6.0
72-55-9		4,4'-DDE	ND	5.6
60-57-1		dielrin	ND	2.5
72-20-8		endrin	ND	8.0
33213-65-9		endosulfan II	ND	10
72-54-8		4,4'-DDD	ND	2.8
50-29-3		4,4'-DDT	ND	4.7
57-74-9(g)		gamma chlordane	ND	10
57-74-9(a)		alpha chlordane	ND	10
8001-35-2		toxaphene	ND	N/A
1031-07-8		endosulfan sulfate	ND	5.6
7421-93-4		endrin aldehyde	ND	10
72-43-5		methoxychlor	ND	N/A
53494-70-5		endrin ketone	ND	N/A
12674-11-2		PCB-1016	ND	150
11104-28-2		PCB-1221	ND	30
11141-16-5		PCB-1232	ND	120
53469-21-9		PCB-1242	ND	120

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RAS Sacramento

Results by Sample

REPORT

Work Order # S6-08-034
Continued From Above

SAMPLE ID 860257

FRACTION 01A

TEST CODE MS 608

NAME Pesticides by GC/MS

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
—	12672-29-6	PCB-1248	ND	360
—	11097-69-1	PCB-1254	ND	34
—	11096-82-5	PCB-1260	ND	500

NOTES AND DEFINITIONS FOR THIS REPORT

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

* = less than 5 times the detection limit.

N/A = not available.

SAMPLE ID 860258

SAMPLE # 02 FRACTIONS: A

Date & Time Collected 08/21/86

Category

EX_BNA 08/25/86

date completed

FRACTION 02A

TEST CODE CL 625

NAME Semivolatile Organics H20

Date & Time Collected 08/21/86

Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE COMPOUNDS

ANALYST
INSTRMT

EXTRCTD 08/25/86
INJECTD 09/10/86

FILE # 5CU08034C02

UNITS
VERIFIED

— LAK

— ug/l

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
—	62-75-9	n-nitrosodimethylamine	ND	10
—	108-95-2	phenol	ND	1.5
—	62-53-3	aniline	ND	10
—	111-44-4	bis(2-chloroethyl) ether	ND	5.7
—	95-57-8	2-chlorophenol	ND	3.3
—	541-73-1	1,3-dichlorobenzene	ND	1.9
—	106-46-7	1,4-dichlorobenzene	ND	4.4
—	100-51-6	benzyl alcohol	ND	50
—	95-50-1	1,2-dichlorobenzene	ND	1.9
—	95-48-7	2-methylphenol	ND	10
—	108-60-1	bis(2-chloroisopropyl) ether	ND	5.7
—	106-44-5	4-methylphenol	ND	10
—	621-64-7	n-nitroso-di-n-propylamine	ND	12
—	67-72-1	hexachloroethane	ND	1.6
—	98-95-3	nitrobenzene	ND	1.9
—	78-59-1	isophorone	ND	2.2
—	88-75-5	2-nitrophenol	ND	3.6
—	105-67-9	2,4-dimethylphenol	ND	2.7
—	65-85-0	benzoic acid	ND	50
—	111-91-1	bis(2-chloroethoxy)methane	ND	5.3
—	120-83-2	2,4-dichlorophenol	ND	2.7
—	120-82-1	1,2,4-trichlorobenzene	ND	1.9
—	91-20-3	naphthalene	ND	1.6
—	106-47-8	4-chloroaniline	ND	10
—	87-68-3	hexachlorobutadiene	ND	0.90
—	59-50-7	4-chloro-3-methylphenol	ND	3.0
—	91-57-6	2-methylnapalene	ND	10

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RAS Sacramento

Results by Sample

REPORT

Work Order # 56-08-034
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FRACTION 02A

TEST CODE CL 625

NAME Semivolatle Organics H20

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	6.0
	88-06-2	2,4,6-trichlorophenol	ND	2.7
	95-95-4	2,4,5-trichlorophenol	ND	10
	91-58-7	2-chloronaphthalene	ND	1.9
	88-74-4	2-nitroaniline	ND	50
	131-11-3	dimethyl phthalate	ND	1.6
	208-96-8	acenaphthylene	ND	3.5
	99-09-2	3-nitroaniline	ND	50
	83-32-9	acenaphthene	ND	1.9
	51-28-5	2,4-dinitrophenol	ND	42
	100-02-7	4-nitrophenol	ND	2.4
	132-64-9	dibenzofuran	ND	10
	606-20-2	2,6-dinitrotoluene	ND	1.9
	121-14-2	2,4-dinitrotoluene	ND	5.7
	84-66-2	diethylphthalate	ND	1.9
	7005-72-3	4-chlorophenyl-phenylether	ND	4.2
	86-73-7	fluorene	ND	1.9
	100-01-06	4-nitroaniline	ND	50
	534-52-1	4,6-dinitro-2-methylphenol	ND	24
	86-30-6	n-nitrosodiphenylamine	ND	1.9
	101-55-3	4-bromophenyl-phenylether	ND	1.9
	118-74-1	hexachlorobenzene	ND	1.9
	87-86-5	pentachlorophenol	ND	3.6
	85-01-8	phenanthrene	ND	5.4
	120-12-7	anthracene	ND	1.9
	84-74-2	di-n-butylphthalate	1.9	2.5
1318	206-44-0	fluoranthene	ND	2.2
	92-87-5	benzidine	ND	44
	129-00-0	pyrene	ND	1.9
	85-68-7	butylbenzylphthalate	ND	2.5
	91-94-1	3,3'-dichlorobenzidine	ND	17
	56-55-3	benzo(a)anthracene	ND	7.8
1657	117-81-7	bis(2-ethylhexyl)phthalate	2.9	2.5

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RAS Sacramento

Results by Sample

REPORT

Work Order # S6-08-034
Continued From Above

FRACTION 02A

TEST CODE CL 625 NAME Semivolatile Organics H20

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	218-01-9	chrysene	ND	2.5
	117-84-0	di-n-octyl phthalate	ND	2.5
	205-99-2	benzo(b)fluoranthene	ND	4.8
	207-08-9	benzo(k)fluoranthene	ND	2.5
	50-32-8	benzo(a)pyrene	ND	2.5
	193-39-5	indeno(1,2,3-cd)pyrene	ND	3.7
	53-70-3	dibenz(a,h)anthracene	ND	2.5
	191-24-2	benzo(ghi)perylene	ND	4.1

4 475

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
368	2-fluorophenol	29 %
486	d5-phenol	37 %
612	d5-nitrobenzene	50 %
884	2-fluorobiphenyl	45 %
1112	2,4,6-tribromophenol	51 %
1471	d14-terphenyl	62 %

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

N/A = not available.

BL = detected in Reagent Blank; background subtraction not performed.

J = estimated value less than detection limit.

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RAS Sacramento

REPORT

Work Order # S6-08-034

Results by Sample

SAMPLE ID 860258

FRACTION 02A

TEST CODE MS 608

NAME Pesticides by GC/MS

Date & Time Collected 08/21/86

Category

 ORGANICS ANALYSIS DATA SHEET
 PESTICIDES

 ANALYST SAL
 INSTRMT 5100

 EXTRACTD 08/23/86
 INJECTD 09/10/86

FILE # 5CU08034C02

VERIFIED LAK

 UNITS ug/l

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
319-84-6		alpha-BHC	ND	3.0
319-85-7		beta-BHC	ND	5.0
58-89-9		gamma-BHC (lindane)	ND	4.0
319-86-8		delta-BHC	ND	4.0
76-44-8		heptachlor	ND	1.9
309-00-2		aldrin	ND	1.9
1024-57-3		heptachlor epoxide	ND	2.2
959-98-8		endosulfan I	ND	6.0
72-55-9		4,4'-DDE	ND	5.6
60-57-1		dieldrin	ND	2.5
72-20-8		endrin	ND	8.0
33213-65-9		endosulfan II	ND	10
72-54-8		4,4'-DDD	ND	2.8
50-29-3		4,4'-DDT	ND	4.7
57-74-9(g)		gamma chlordane	ND	10
57-74-9(a)		alpha chlordane	ND	10
8001-35-2		toxaphene	ND	N/A
1031-07-8		endosulfan sulfate	ND	5.6
7421-93-4		endrin aldehyde	ND	10
72-43-5		methoxychlor	ND	N/A
53494-70-5		endrin ketone	ND	N/A
12674-11-2		PCB-1016	ND	150
11104-28-2		PCB-1221	ND	30
11141-16-5		PCB-1232	ND	120
53469-21-9		PCB-1242	ND	120

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Results by Sample

REPORT

Work Order # S6-08-034
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SAMPLE ID 860258

FRACTION 02A

TEST CODE MS 608

NAME Pesticides by GC\MS

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
12672-29-6		PCB-1248	ND	360
11097-69-1		PCB-1254	ND	34
11096-82-5		PCB-1260	ND	500

NOTES AND DEFINITIONS FOR THIS REPORT

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

* = less than 5 times the detection limit.

N/A = not available.

SAMPLE ID 860259

SAMPLE # 03 FRACTIONS: A

Date & Time Collected 08/21/86

Category

EX BNA 08/25/86

date completed

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SAMPLE ID 860259

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REPORT

Results by Sample

Work Order # S6-08-034

FRACTION 03A

NAME Semivolatile Organics H2O

Date & Time Collected 08/21/86

Category

 ORGANICS ANALYSIS DATA SHEET
 SEMIVOLATILE COMPOUNDS

 ANALYST
 INSTR111

 EXTRCTD 08/23/86
 INJECTD 09/10/86

FILE # 5CU08034C03

 UNITS ug/l VERIFIED LAK

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	10
	108-95-2	phenol	ND	1.5
	62-53-3	aniline	ND	10
	111-44-4	bis(2-chloroethyl) ether	ND	5.7
	95-57-8	2-chlorophenol	ND	3.3
	541-73-1	1,3-dichlorobenzene	ND	1.9
	106-46-7	1,4-dichlorobenzene	ND	4.4
	100-51-6	benzyl alcohol	ND	50
	95-50-1	1,2-dichlorobenzene	ND	1.9
	95-48-7	2-methylphenol	ND	10
	108-60-1	bis(2-chloroisopropyl)ether	ND	5.7
	106-44-5	4-methylphenol	ND	10
	621-64-7	n-nitroso-di-n-propylamine	ND	12
	67-72-1	hexachloroethane	ND	1.6
	98-95-3	nitrobenzene	ND	1.9
	78-59-1	isophorone	ND	2.2
	88-75-5	2-nitrophenol	ND	3.6
	105-67-9	2,4-dimethylphenol	ND	2.7
	65-85-0	benzoic acid	ND	50
	111-91-1	bis(2-chloroethoxy)methane	ND	5.3
	120-83-2	2,4-dichlorophenol	ND	2.7
	120-82-1	1,2,4-trichlorobenzene	ND	1.9
	91-20-3	naphthalene	ND	1.6
	106-47-8	4-chloroaniline	ND	10
	87-68-3	hexachlorobutadiene	ND	0.90
	59-50-7	4-chloro-3-methylphenol	ND	3.0
	91-57-6	2-methylnapalene	ND	10

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 RAS Sacramento
 Results by Sample

 Work Order # S6-08-034
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SAMPLE ID 860259

FRACTION 03A

TEST CODE CL 625

NAME Semivolatile Organics H20

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
77-47-4		hexachlorocyclopentadiene	ND	6.0
88-06-2		2,4,6-trichlorophenol	ND	2.7
95-95-4		2,4,5-trichlorophenol	ND	10
91-58-7		2-chloronaphthalene	ND	1.9
88-74-4		2-nitroaniline	ND	50
131-11-3		dimethyl phthalate	ND	1.6
208-96-8		acenaphthylene	ND	3.3
99-09-2		3-nitroaniline	ND	50
83-32-9		acenaphthene	ND	1.9
51-28-5		2,4-dinitrophenol	ND	42
100-02-7		4-nitrophenol	ND	2.4
132-64-9		dibenzofuran	ND	10
606-20-2		2,6-dinitrotoluene	ND	1.9
121-14-2		2,4-dinitrotoluene	ND	5.7
84-66-2		diethylphthalate	ND	1.9
7005-72-3		4-chlorophenyl-phenylether	ND	4.2
86-73-7		fluorene	ND	1.9
100-01-06		4-nitroaniline	ND	50
534-52-1		4,6-dinitro-2-methylphenol	ND	24
86-30-6		n-nitrosodiphenylamine	ND	1.9
101-55-3		4-bromophenyl-phenylether	ND	1.9
118-74-1		hexachlorobenzene	ND	1.9
87-86-5		pentachlorophenol	ND	3.6
85-01-8		phenanthrene	ND	5.4
120-12-7		anthracene	ND	1.9
84-74-2		di-n-butylphthalate	ND	2.5
206-44-0		fluoranthene	ND	2.2
92-87-5		benzidine	ND	44
129-00-0		pyrene	ND	1.9
85-68-7		butylbenzylphthalate	ND	2.5
91-94-1		3,3'-dichlorobenzidine	ND	17
56-55-3		benzo(a)anthracene	ND	7.8
117-81-7		bis(2-ethylhexyl)phthalate	ND	2.5

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Results by Sample

REPORT

Work Order # S6-08-034
Continued From Above

SAMPLE ID 860259

FRACTION 03A

TEST CODE CL 625

NAME Semivolatile Organics H20

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
—	218-01-9	chrysene	ND	2.5
—	117-84-0	di-n-octyl phthalate	ND	2.5
—	205-99-2	benzo(b)fluoranthene	ND	4.8
—	207-08-9	benzo(k)fluoranthene	ND	2.5
—	50-32-8	benzo(a)pyrene	ND	2.5
—	193-39-5	indeno(1,2,3-cd)pyrene	ND	3.7
—	53-70-3	dibenz(a,h)anthracene	ND	2.5
—	191-24-2	benzo(ghi)perylene	ND	4.1

4 480

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
372	2-fluorophenol	50 %
488	d5-phenol	55 %
614	d5-nitrobenzene	53 %
884	2-fluorobiphenyl	45 %
1112	2,4,6-tribromophenol	63 %
1472	d14-terphenyl	58 %

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

N/A = not available.

BL = detected in Reagent Blank; background subtraction not performed.

J = estimated value less than detection limit.

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SAMPLE ID 860259

RAS Sacramento

Results by Sample

REPORT

Work Order # S6-08-034

FRACTION 03A TEST CODE MS 608 NAME Pesticides by GC/MS
Date & Time Collected 08/21/86 Category

ORGANICS ANALYSIS DATA SHEET
PESTICIDES

EXTRCTD 08/25/86 FILE # 5CU08034C03 VERIFIED LAK
INJECTD 09/10/86 UNITS ug/l

ANALYST SAL
INSTRMT 5100

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	319-84-6	alpha-BHC	ND	3.0
	319-85-7	beta-BHC	ND	5.0
	58-89-9	gamma-BHC (lindane)	ND	4.0
	319-86-8	delta-BHC	ND	4.0
	76-44-8	heptachlor	ND	1.9
	309-00-2	aldrin	ND	1.9
	1024-57-3	heptachlor epoxide	ND	2.2
	959-98-8	endosulfan I	ND	6.0
	72-55-9	4,4'-DDE	ND	5.6
	60-57-1	dieldrin	ND	2.5
	72-20-8	endrin	ND	8.0
	33213-65-9	endosulfan II	ND	10
	72-54-8	4,4'-DDD	ND	2.8
	50-29-3	4,4'-DDT	ND	4.7
	57-74-9(g)	gamma chlordane	ND	10
	57-74-9(a)	alpha chlordane	ND	10
	8001-35-2	toxaphene	ND	N/A
	1031-07-8	endosulfan sulfate	ND	5.6
	7421-93-4	endrin aldehyde	ND	10
	72-43-5	methoxychlor	ND	N/A
	53494-70-5	endrin ketone	ND	N/A
	12674-11-2	PCB-1016	ND	150
	11104-28-2	PCB-1221	ND	30
	11141-16-5	PCB-1232	ND	120
	53469-21-9	PCB-1242	ND	120

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Results by Sample

REPORT

Work Order # S6-08-034
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SAMPLE ID 860259

FRACTION 03A

TEST CODE MS 608

NAME Pesticides by GC/MS

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
12672-29-6		PCB-1248	ND	360
11097-69-1		PCB-1254	ND	34
11096-82-5		PCB-1260	ND	500

NOTES AND DEFINITIONS FOR THIS REPORT

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

* = less than 5 times the detection limit.

N/A = not available.

SAMPLE ID 860260

SAMPLE # 04 FRACTIONS: A

Date & Time Collected 08/21/86

Category

EX_BNA 08/25/86

date completed

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RAS Sacramento

REPORT

Work Order # S6-08-034

Results by Sample

SAMPLE ID 860260

FRACTION 04A

TEST CODE CL 625

NAME Semivolatiles Organics H20

Date & Time Collected 08/21/86

Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE COMPOUNDS

ANALYST _____
INSTRM1 5100

EXTRCTD 08/23/86
INJECTD 09/10/86

FILE # 5CU08034C04

UNITS _____
VERIFIED _____
LAK

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
_____	62-75-9	n-nitrosodimethylamine	ND	10
_____	108-95-2	phenol	ND	1.5
_____	62-53-3	aniline	ND	10
_____	111-44-4	bis(2-chloroethyl) ether	ND	5.7
_____	95-57-8	2-chlorophenol	ND	3.3
_____	541-73-1	1,3-dichlorobenzene	ND	1.9
_____	106-46-7	1,4-dichlorobenzene	ND	4.4
_____	100-51-6	benzyl alcohol	ND	50
_____	95-50-1	1,2-dichlorobenzene	ND	1.9
_____	95-48-7	2-methylphenol	ND	10
_____	108-60-1	bis(2-chloroisopropyl) ether	ND	5.7
_____	106-44-5	4-methylphenol	ND	10
_____	621-64-7	n-nitroso-di-n-propylamine	ND	12
_____	67-72-1	hexachloroethane	ND	1.6
_____	98-95-3	nitrobenzene	ND	1.9
_____	78-59-1	isophorone	ND	2.2
_____	88-75-5	2-nitrophenol	ND	3.6
_____	105-67-9	2,4-dimethylphenol	ND	2.7
_____	65-85-0	benzoic acid	ND	50
_____	111-91-1	bis(2-chloroethoxy)methane	ND	5.3
_____	120-83-2	2,4-dichlorophenol	ND	2.7
_____	120-82-1	1,2,4-trichlorobenzene	ND	1.9
_____	91-20-3	naphthalene	ND	1.6
_____	106-47-8	4-chloroaniline	ND	10
_____	87-68-3	hexachlorobutadiene	ND	0.90
_____	59-50-7	4-chloro-3-methylphenol	ND	3.0
_____	91-57-6	2-methylnapthalene	ND	10

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Results by Sample

REPORT

Work Order # S6-08-034
Continued From Above

SAMPLE ID 860260

FRACTION 04A

TEST CODE CL 625

NAME Semivolatile Organics H20

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	6.0
	88-06-2	2,4,6-trichlorophenol	ND	2.7
	95-95-4	2,4,5-trichlorophenol	ND	10
	91-58-7	2-chloronaphthalene	ND	1.9
	88-74-4	2-nitroaniline	ND	50
	131-11-3	dimethyl phthalate	ND	1.6
	208-96-8	acenaphthylene	ND	3.5
	99-09-2	3-nitroaniline	ND	50
	83-32-9	acenaphthene	ND	1.9
	51-28-5	2,4-dinitrophenol	ND	42
	100-02-7	4-nitrophenol	ND	2.4
	132-64-9	dibenzofuran	ND	10
	606-20-2	2,6-dinitrotoluene	ND	1.9
	121-14-2	2,4-dinitrotoluene	ND	5.7
	84-66-2	diethylphthalate	ND	1.9
	7005-72-3	4-chlorophenyl-phenylether	ND	4.2
	86-73-7	fluorene	ND	1.9
	100-01-06	4-nitroaniline	ND	50
	534-52-1	4,6-dinitro-2-methylphenol	ND	24
	86-30-6	n-nitrosodiphenylamine	ND	1.9
	101-55-3	4-bromophenyl-phenylether	ND	1.9
	118-74-1	hexachlorobenzene	ND	1.9
	87-86-5	pentachlorophenol	ND	3.6
	85-01-8	phenanthrene	ND	5.4
	120-12-7	anthracene	ND	1.9
	84-74-2	di-n-butylphthalate	ND	2.5
	206-44-0	fluoranthene	ND	2.2
	92-87-5	benzidine	ND	44
	129-00-0	pyrene	ND	1.9
	85-68-7	butylbenzylphthalate	ND	2.5
	91-94-1	3,3'-dichlorobenzidine	ND	17
	56-55-3	benzo(a)anthracene	ND	7.8
	117-81-7	bis(2-ethylhexyl)phthalate	ND	2.5

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Results by Sample

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SAMPLE ID 860260

FRACTION 04A

TEST CODE CL 625

NAME Semivolatile Organics H20

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	218-01-9	chrysene	ND	2.5
	117-84-0	di-n-octyl phthalate	ND	2.5
	205-99-2	benzo(b)fluoranthene	ND	4.8
	207-08-9	benzo(k)fluoranthene	ND	2.5
	50-32-8	benzo(a)pyrene	ND	2.5
	193-39-5	indeno(1,2,3-cd)pyrene	ND	3.7
	53-70-3	dibenz(a,h)anthracene	ND	2.5
	191-24-2	benzo(ghi)perylene	ND	4.1

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
353	2-fluorophenol	41 %
478	d5-phenol	49 %
608	d5-nitrobenzene	57 %
882	2-fluorobiphenyl	42 %
1111	2,4,6-tribromophenol	58 %
1470	d14-terphenyl	55 %

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

N/A = not available.

BL = detected in Reagent Blank; background subtraction not performed.

J = estimated value less than detection limit.

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Results by Sample

REPORT

Work Order # 56-08-034

SAMPLE ID 860260

FRACTION 04A

TEST CODE MS 608

NAME Pesticides by GC/MS

Date & Time Collected 08/21/86

Category

ORGANICS ANALYSIS DATA SHEET
PESTICIDES

EXTRCTD 08/25/86 FILE # 5CU08034C04
INJECTD 09/10/86 UNITS ug/l

ANALYST SAL
INSTRMT 5100

VERIFIED LAK

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
319-84-6		alpha-BHC	ND	3.0
319-85-7		beta-BHC	ND	5.0
58-89-9		gamma-BHC (lindane)	ND	4.0
319-86-8		delta-BHC	ND	4.0
76-44-8		heptachlor	ND	1.9
309-00-2		aldrin	ND	1.9
1024-57-3		heptachlor epoxide	ND	2.2
959-98-8		endosulfan I	ND	6.0
72-55-9		4,4'-DDE	ND	5.6
60-57-1		dieldrin	ND	2.5
72-20-8		endrin	ND	8.0
33213-65-9		endosulfan II	ND	10
72-54-8		4,4'-DDD	ND	2.8
50-29-3		4,4'-DDT	ND	4.7
57-74-9(g)		gamma chlordane	ND	10
57-74-9(a)		alpha chlordane	ND	10
8001-35-2		toxaphene	ND	N/A
1031-07-8		endosulfan sulfate	ND	5.6
7421-93-4		endrin aldehyde	ND	10
72-43-5		methoxychlor	ND	N/A
53494-70-5		endrin ketone	ND	N/A
12674-11-2		PCB-1016	ND	150
11104-28-2		PCB-1221	ND	30
11141-16-5		PCB-1232	ND	120
53469-21-9		PCB-1242	ND	120

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Results by Sample

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SAMPLE ID 860260

FRACTION 04A TEST CODE MS 608

NAME Pesticides by GC/MS

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
12672-29-6		PCB-1248	ND	360
11097-69-1		PCB-1254	ND	34
11096-82-5		PCB-1260	ND	500

NOTES AND DEFINITIONS FOR THIS REPORT

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

+ = less than 5 times the detection limit.

N/A = not available.

SAMPLE ID 860261

SAMPLE # 05 FRACTIONS: A

Date & Time Collected 08/21/86

Category

EX_BNA 08/25/86

date completed

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REPORT

Work Order # S6-08-034

Results by Sample

SAMPLE ID 860261

FRACTION 05A

TEST CODE CL 625

NAME Semivolatile Organics H20

Date & Time Collected 08/21/86

Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE COMPOUNDSANALYST
INSTRMTSAL
5100EXTRCTD 08/25/86
INJECTD 09/10/86

FILE # 5CU08034C05

UNITS
VERIFIED LAK
ug/l

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	10
	108-95-2	phenol	ND	1.5
	62-53-3	aniline	ND	10
	111-44-4	bis(2-chloroethyl) ether	ND	5.7
	95-57-8	2-chlorophenol	ND	3.3
	541-73-1	1,3-dichlorobenzene	ND	1.9
	106-46-7	1,4-dichlorobenzene	ND	4.4
	100-51-6	benzyl alcohol	ND	50
	95-50-1	1,2-dichlorobenzene	ND	1.9
	95-48-7	2-methylphenol	ND	10
	108-60-1	bis(2-chloroisopropyl)ether	ND	5.7
	106-44-5	4-methylphenol	ND	10
	621-64-7	n-nitroso-di-n-propylamine	ND	12
	67-72-1	hexachloroethane	ND	1.6
	98-95-3	nitrobenzene	ND	1.9
	78-59-1	isophorone	ND	2.2
	88-75-5	2-nitrophenol	ND	3.6
	105-67-9	2,4-dimethylphenol	ND	2.7
	65-85-0	benzoic acid	ND	50
	111-91-1	bis(2-chloroethoxy)methane	ND	5.3
	120-83-2	2,4-dichlorophenol	ND	2.7
	120-82-1	1,2,4-trichlorobenzene	ND	1.9
	91-20-3	naphthalene	ND	1.6
	106-47-8	4-chloroaniline	ND	10
	87-68-3	hexachlorobutadiene	ND	0.90
	59-50-7	4-chloro-3-methylphenol	ND	3.0
	91-57-6	2-methylnapalene	ND	10

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Results by Sample

REPORT

 Work Order # S6-08-034
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SAMPLE ID 860261

FRACTION 05A TEST CODE CL 625 NAME Semivolatiles Organics H20

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	6.0
	88-06-2	2,4,6-trichlorophenol	ND	2.7
	95-95-4	2,4,5-trichlorophenol	ND	10
	91-58-7	2-chloronaphthalene	ND	1.9
	88-74-4	2-nitroaniline	ND	50
	131-11-3	dimethyl phthalate	ND	1.6
	208-96-8	acenaphthylene	ND	3.5
	99-09-2	3-nitroaniline	ND	50
	83-32-9	acenaphthene	ND	1.9
	51-28-5	2,4-dinitrophenol	ND	42
	100-02-7	4-nitrophenol	ND	2.4
	132-64-9	dibenzofuran	ND	10
	606-20-2	2,6-dinitrotoluene	ND	1.9
	121-14-2	2,4-dinitrotoluene	ND	5.7
	84-66-2	diethylphthalate	ND	1.9
	7005-72-3	4-chlorophenyl-phenylether	ND	4.2
	86-73-7	fluorene	ND	1.9
	100-01-06	4-nitroaniline	ND	50
	534-52-1	4,6-dinitro-2-methylphenol	ND	24
	86-30-6	n-nitrosodiphenylamine	ND	1.9
	101-55-3	4-bromophenyl-phenylether	ND	1.9
	118-74-1	hexachlorobenzene	ND	1.9
	87-86-5	pentachlorophenol	ND	3.6
	85-01-8	phenanthrene	ND	5.4
	120-12-7	anthracene	ND	1.9
	84-74-2	di-n-butylphthalate	ND	2.5
	206-44-0	fluoranthene	ND	2.2
	92-87-5	benzidine	ND	44
	129-00-0	pyrene	ND	1.9
	85-68-7	butylbenzylphthalate	ND	2.5
	91-94-1	3,3'-dichlorobenzidine	ND	17
	56-55-3	benzo(a)anthracene	ND	7.8
	117-81-7	bis(2-ethylhexyl)phthalate	ND	2.5

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Results by Sample

REPORT

Work Order # S6-08-034
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SAMPLE ID 860261

FRACTION 05A

TEST CODE CL 625

NAME Semivolatile Organics H20

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	218-01-9	chrysene	ND	2.5
	117-84-0	di-n-octyl phthalate	ND	2.5
	205-99-2	benzo(b)fluoranthene	ND	4.8
	207-08-9	benzo(k)fluoranthene	ND	2.5
	50-32-8	benzo(a)pyrene	ND	2.5
	193-39-5	indeno(1,2,3-cd)pyrene	ND	3.7
	53-70-3	dibenz(a,h)anthracene	ND	2.5
	191-24-2	benzo(ghi)perylene	ND	4.1

4 490

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
352	2-fluorophenol	48 %
477	d5-phenol	52 %
608	d5-nitrobenzene	61 %
883	2-fluorobiphenyl	45 %
1110	2,4,6-tribromophenol	67 %
1470	d14-terphenyl	68 %

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

N/A = not available.

BL = detected in Reagent Blank; background subtraction not performed.

J = estimated value less than detection limit.

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SAMPLE ID 860261

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Results by Sample

REPORT

Work Order # S6-08-034

FRACTION 05A

TEST CODE MS 608

NAME Pesticides by GC/MS

Date & Time Collected 08/21/86

Category

ORGANICS ANALYSIS DATA SHEET PESTICIDES

EXTRCTD 08/25/86 FILE # 3CU08034CQ5
INJECTD 09/10/86 UNITS ug/l

ANALYST SAL
INSTRMT 510Q

VERIFIED LAK

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	319-84-6	alpha-BHC	ND	3.0
	319-85-7	beta-BHC	ND	5.0
	58-89-9	gamma-BHC (lindane)	ND	4.0
	319-86-8	delta-BHC	ND	4.0
	76-44-8	heptachlor	ND	1.9
	309-00-2	aldrin	ND	1.9
	1024-57-3	heptachlor epoxide	ND	2.2
	959-98-8	endosulfan I	ND	6.0
	72-55-9	4,4'-DDE	ND	5.6
	60-57-1	dieldrin	ND	2.5
	72-20-8	endrin	ND	8.0
	33213-65-9	endosulfan II	ND	10
	72-54-8	4,4'-DDD	ND	2.8
	50-29-3	4,4'-DDT	ND	4.7
	57-74-9(g)	gamma chlordane	ND	10
	57-74-9(a)	alpha chlordane	ND	10
	8001-35-2	toxaphene	ND	N/A
	1031-07-8	endosulfan sulfate	ND	5.6
	7421-93-4	endrin aldehyde	ND	10
	72-43-5	methoxychlor	ND	N/A
	53494-70-5	endrin ketone	ND	N/A
	12674-11-2	PCB-1016	ND	150
	11104-28-2	PCB-1221	ND	30
	11141-16-5	PCB-1232	ND	120
	53469-21-9	PCB-1242	ND	120

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REPORT

Results by Sample

Work Order # S6-08-034
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SAMPLE ID 860261

FRACTION 05A

TEST CODE MS 608

NAME Pesticides by GC\MS

Date & Time Collected 08/21/86

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
—	12672-29-6	PCB-1248	ND	360
—	11097-69-1	PCB-1254	ND	34
—	11096-82-5	PCB-1260	ND	500

NOTES AND DEFINITIONS FOR THIS REPORT

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

* = less than 5 times the detection limit.

N/A = not available.

SAMPLE ID Method Spike BNA

SAMPLE # 06 FRACTIONS: A

Date & Time Collected not specified Category

EX BNA 08/25/86

date completed

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REPORT

Results by Sample

Work Order # S6-08-034
Continued From Above

SAMPLE ID Method Spike BNA

FRACTION 06A

TEST CODE CL 625

NAME Semivolatle Organics H20

Date & Time Collected not specified

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
859	77-47-4	hexachlorocyclopentadiene	2	6.0
871	88-06-2	2,4,6-trichlorophenol	48	2.7
889	95-95-4	2,4,5-trichlorophenol	NS	10
952	91-58-7	2-chloronaphthalene	51	1.9
964	88-74-4	2-nitroaniline	NS	50
993	131-11-3	dimethyl phthalate	41	1.6
999	208-96-8	acenaphthylene	51	3.5
1009	99-09-2	3-nitroaniline	NS	50
961	83-32-9	acenaphthene	52	1.9
1022	51-28-5	2,4-dinitrophenol	21	42
1063	100-02-7	4-nitrophenol	31	2.4
1072	132-64-9	dibenzofuran	NS	10
1072	606-20-2	2,6-dinitrotoluene	56	1.9
1072	121-14-2	2,4-dinitrotoluene	56	5.7
1072	84-66-2	diethylphthalate	50	1.9
1072	7005-72-3	4-chlorophenyl-phenylether	46	4.2
1072	86-73-7	fluorene	50	1.9
1085	100-01-06	4-nitroaniline	NS	50
1090	534-52-1	4,6-dinitro-2-methylphenol	57	24
1171	86-30-6	n-nitrosodiphenylamine	71	1.9
1193	101-55-3	4-bromophenyl-phenylether	NS	1.9
1222	118-74-1	hexachlorobenzene	64	1.9
1229	87-86-5	pentachlorophenol	59	3.6
1318	85-01-8	phenanthrene	53	5.4
1410	120-12-7	anthracene	73	1.9
1446	84-74-2	di-n-butylphthalate	53	2.5
1555	206-44-0	fluoranthene	50	2.2
1643	92-87-5	benzidine	NS	44
	129-00-0	pyrene	51	1.9
	85-68-7	butylbenzylphthalate	52	2.5
	91-94-1	3,3'-dichlorobenzidine	NS	17
	56-55-3	benzo(a)anthracene	52	7.8
	117-81-7	bis(2-ethylhexyl)phthalate	NS	2.5

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REPORT

Results by Sample

Work Order # S6-08-034
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SAMPLE ID Method Spike BNA

FRACTION 06A

TEST CODE CL 625

NAME Semivolatile Organics H2O

Date & Time Collected not specified

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
1651	218-01-9	chrysene	51	2.5
1763	117-84-0	di-n-octyl phthalate	52	2.5
1837	205-99-2	benzo(b)fluoranthene	50	4.8
1842	207-08-9	benzo(k)fluoranthene	57	2.5
1905	50-32-8	benzo(a)pyrene	49	2.5
2213	193-39-5	indeno(1,2,3-cd)pyrene	64	3.7
2219	53-70-3	dibenz(a,h)anthracene	68	2.5
2300	191-24-2	benzo(ghi)perylene	63	4.1

4 495

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
356	2-fluorophenol	53 %
479	d5-phenol	62 %
609	d5-nitrobenzene	54 %
884	2-fluorobiphenyl	48 %
1111	2,4,6-tribromophenol	80 %
1500	d14-terphenyl	63 %

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

N/A = not available.

BL = detected in Reagent Blank; background subtraction not performed.

J = estimated value less than detection limit.

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Received: 08/23/86

RAS Sacramento

REPORT

Work Order # S6-08-034

Results by Sample

SAMPLE ID Method Spike BNA

FRACTION 06A TEST CODE MS 608 NAME Pesticides by GC\MS
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
PESTICIDES

ANALYST SAL
INSTRMT 5100

EXTRCTD 08/25/86 FILE # 5CM08034106
INJECTD 09/10/86 UNITS %

VERIFIED LAK

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
1157	319-84-6	alpha-BHC	43	3.0
1192	319-85-7	beta-BHC	41	5.0
1203	58-89-9	gamma-BHC (lindane)	46	4.0
1233	319-86-8	delta-BHC	43	4.0
1304	76-44-8	heptachlor	44	1.9
1352	309-00-2	aldrin	50	1.9
1401	1024-57-3	heptachlor epoxide	75	2.2
1449	959-98-8	endosulfan I	31	6.0
1468	72-55-9	4,4'-DDE	53	5.6
1511	60-57-1	dieldrin	53	2.5
1511	72-20-8	endrin	60	8.0
1521	33213-65-9	endosulfan II	42	10
1520	72-54-8	4,4'-DDD	48	2.8
1568	50-29-3	4,4'-DDT	52	4.7
	57-74-9(g)	gamma chlordane	NA	10
	57-74-9(a)	alpha chlordane	NA	10
	8001-35-2	toxaphene	45	N/A
1521	1031-07-8	endosulfan sulfate	54	5.6
1573	7421-93-4	endrin aldehyde	NA	10
	72-43-5	methoxychlor	NA	N/A
	53494-70-5	endrin ketone	NA	N/A
	12674-11-2	PCB-1016	NA	150
	11104-28-2	PCB-1221	NA	30
	11141-16-5	PCB-1232	NA	120
	53469-21-9	PCB-1242	NA	120

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Results by Sample

Work Order # S6-08-034
Continued From Above

SAMPLE ID Method Spike BNA

FRACTION 06A TEST CODE MS 608 NAME Pesticides by GC\MS

Date & Time Collected not specified

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
12672-29-6		PCB-1248	NA	360
11097-69-1		PCB-1254	NA	34
11096-82-5		PCB-1260	NA	500

NOTES AND DEFINITIONS FOR THIS REPORT

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

* = less than 5 times the detection limit.

!NA = not available.

SAMPLE ID Reagent Blank BNA

SAMPLE # 06 FRACTIONS: B

Date & Time Collected not specified

Category

EX_BNA 08/25/86

date completed

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Received: 08/23/86

RAS Sacramento

Results by Sample

Work Order # S6-08-034

SAMPLE ID Reagent Blank BNA

FRACTION 06B

TEST CODE CL 625

NAME Semivolatile Organics H2O

Date & Time Collected not specified

Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE COMPOUNDS

ANALYST _____
INSTRMT 5100

EXTRCTD 08/25/86
INJECTD 09/05/86

FILE # 5CB08034C06

UNITS _____
VERIFIED LAK
ug/l

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
_____	62-75-9	n-nitrosodimethylamine	ND	10
_____	108-95-2	phenol	ND	1.5
_____	62-53-3	aniline	ND	10
_____	111-44-4	bis(2-chloroethyl) ether	ND	5.7
_____	95-57-8	2-chlorophenol	ND	3.3
_____	541-73-1	1,3-dichlorobenzene	ND	1.9
_____	106-46-7	1,4-dichlorobenzene	ND	4.4
_____	100-51-6	benzyl alcohol	ND	50
_____	95-50-1	1,2-dichlorobenzene	ND	1.9
_____	95-48-7	2-methylphenol	ND	10
_____	108-60-1	bis(2-chloroisopropyl) ether	ND	5.7
_____	106-44-5	4-methylphenol	ND	10
_____	621-64-7	n-nitroso-di-n-propylamine	ND	12
_____	67-72-1	hexachloroethane	ND	1.6
_____	98-95-3	nitrobenzene	ND	1.9
_____	78-59-1	isophorone	ND	2.2
_____	88-75-5	2-nitrophenol	ND	3.6
_____	105-67-9	2,4-dimethylphenol	ND	2.7
_____	65-85-0	benzoic acid	ND	50
_____	111-91-1	bis(2-chloroethoxy)methane	ND	5.3
_____	120-83-2	2,4-dichlorophenol	ND	2.7
_____	120-82-1	1,2,4-trichlorobenzene	ND	1.9
_____	91-20-3	naphthalene	ND	1.6
_____	106-47-8	4-chloroaniline	ND	10
_____	87-68-3	hexachlorobutadiene	ND	0.90
_____	59-50-7	4-chloro-3-methylphenol	ND	3.0
_____	91-57-6	2-methylnapalene	ND	10

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Received: 08/23/86

RAS Sacramento

REPORT

Results by Sample

Work Order # S6-08-034
Continued From Above

SAMPLE ID Reagent Blank BNA

FRACTION 06B

TEST CODE CL 625 NAME Semivolatile Organics H20

Date & Time Collected not specified

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
77-47-4		hexachlorocyclopentadiene	ND	6.0
88-06-2		2,4,6-trichlorophenol	ND	2.7
95-95-4		2,4,5-trichlorophenol	ND	10
91-58-7		2-chloronaphthalene	ND	1.9
88-74-4		2-nitroaniline	ND	50
131-11-3		dimethyl phthalate	ND	1.6
208-96-8		acenaphthylene	ND	3.5
99-09-2		3-nitroaniline	ND	50
83-32-9		acenaphthene	ND	1.9
51-28-5		2,4-dinitrophenol	ND	42
100-02-7		4-nitrophenol	ND	2.4
132-64-9		dibenzofuran	ND	10
606-20-2		2,6-dinitrotoluene	ND	1.9
121-14-2		2,4-dinitrotoluene	ND	5.7
84-66-2		diethylphthalate	ND	1.9
7005-72-3		4-chlorophenyl-phenylether	ND	4.2
86-73-7		fluorene	ND	1.9
100-01-06		4-nitroaniline	ND	50
534-52-1		4,6-dinitro-2-methylphenol	ND	24
86-30-6		n-nitrosodiphenylamine	ND	1.9
101-55-3		4-bromophenyl-phenylether	ND	1.9
118-74-1		hexachlorobenzene	ND	1.9
87-86-5		pentachlorophenol	ND	3.6
85-01-8		phenanthrene	ND	5.4
120-12-7		anthracene	ND	1.9
84-74-2		di-n-butylphthalate	ND	2.5
206-44-0		fluoranthene	ND	2.2
92-87-5		benzidine	ND	44
129-00-0		pyrene	ND	1.9
85-68-7		butylbenzylphthalate	ND	2.5
91-94-1		3,3'-dichlorobenzidine	ND	17
56-55-3		benzo(a)anthracene	ND	7.8
117-81-7		bis(2-ethylhexyl)phthalate	ND	2.5

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Received: 08/23/86

RAS Sacramento

Results by Sample

REPORT

Work Order # S6-08-034
Continued From Above

SAMPLE ID Reagent Blank BNA

FRACTION 06B

TEST CODE CL 625 NAME Semivolatle Organics H2O

Date & Time Collected not specified

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
—	218-01-9	chrysene	ND	2.5
—	117-84-0	di-n-octyl phthalate	ND	2.5
—	205-99-2	benzo(b)fluoranthene	ND	4.8
—	207-08-9	benzo(k)fluoranthene	ND	2.5
—	50-32-8	benzo(a)pyrene	ND	2.5
—	193-39-5	indeno(1,2,3-cd)pyrene	ND	3.7
—	53-70-3	dibenz(a,h)anthracene	ND	2.5
—	191-24-2	benzo(ghi)perylene	ND	4.1

4 500

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
371	2-fluorophenol	48 %
487	d5-phenol	47 %
613	d5-nitrobenzene	50 %
884	2-fluorobiphenyl	47 %
1112	2,4,6-tribromophenol	39 %
1471	d14-terphenyl	59 %

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

N/A = not available.

BL = detected in Reagent Blank, background subtraction not performed.

J = estimated value less than detection limit.

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Received: 08/23/86

RAS Sacramento

REPORT

Work Order # S6-08-034

Results by Sample

SAMPLE ID Reagent Blank BNA

FRACTION 06B

TEST CODE MS 608 NAME Pesticides by GC/MS

Date & Time Collected not specified

Category

ORGANICS ANALYSIS DATA SHEET
PESTICIDES

EXTRCTD 08/25/86 FILE # 5CB08034C06 VERIFIED LAK
INJECTD 09/05/86 UNITS ug/l

ANALYST SAL
INSTRMT 5100

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	319-94-6	alpha-BHC	ND	3.0
	319-85-7	beta-BHC	ND	5.0
	58-89-9	gamma-BHC (lindane)	ND	4.0
	319-86-8	delta-BHC	ND	4.0
	76-44-8	heptachlor	ND	1.9
	309-00-2	aldrin	ND	1.9
	1024-57-3	heptachlor epoxide	ND	2.2
	959-98-8	endosulfan I	ND	6.0
	72-55-9	4,4'-DDE	ND	5.6
	60-57-1	dieldrin	ND	2.5
	72-20-8	endrin	ND	8.0
	33213-65-9	endosulfan II	ND	10
	72-54-8	4,4'-DDD	ND	2.8
	50-29-3	4,4'-DDT	ND	4.7
	57-74-9(g)	gamma chlordane	ND	10
	57-74-9(a)	alpha chlordane	ND	10
	8001-35-2	toxaphene	ND	N/A
	1031-07-8	endosulfan sulfate	ND	5.6
	7421-93-4	endrin aldehyde	ND	10
	72-43-5	methoxychlor	ND	N/A
	53494-70-5	endrin ketone	ND	N/A
	12674-11-2	PCB-1016	ND	150
	11104-28-2	PCB-1221	ND	30
	11141-16-5	PCB-1232	ND	120
	53469-21-9	PCB-1242	ND	120

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Received: 08/23/86

RAS Sacramento

Results by Sample

REPORT

Work Order # S6-08-034
Continued From Above

SAMPLE ID Reagent Blank BNA

FRACTION 06B

TEST CODE MS 60B

NAME Pesticides by GC\MS

Date & Time Collected not specified

Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
—	12672-29-6	PCB-1248	ND	360
—	11097-69-1	PCB-1254	ND	34
—	11096-82-5	PCB-1260	ND	500

NOTES AND DEFINITIONS FOR THIS REPORT

DET LIMIT = detection limit.

ND = not detected at specified detection limit.

NA = not analyzed.

* = less than 5 times the detection limit.

N/A = not available.

Page 1
Received: 08/20/86
RAS - Austin
08/27/86 15:53:33
REPORT
Work Order # 86-08-078

REPORT Radian
TO B1
Austin
ATTEN Larry French
CLIENT PLANT 4
COMPANY Plant 4, USAF
FACILITY General Dynamics

PREPARED Radian Analytical Services
BY 8501 Mo-pac Bl.
PO Box 9948
Austin, TX 78751
ATTEN
PHONE 512-454-4797

[Signature]
CERTIFIED BY
CONTACT CONOVER

Footnotes and Comments

- * Indicates a value less than 5 times the detection limit.
Potential error for such low values ranges between 50 and 100%.
- @ Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

WORK ID 860229, 860230
TAKEN WJ
TRANS FED Ex
TYPE
P O # 212-027-27-40
INVOICE under separate cover

SAMPLE IDENTIFICATION

01 860229
02 860230

TEST CODES and NAMES used on this report

HC IR Hydrocarbons
ONG IR Oil and grease, infrared

Page 2

RAS - Austin

REPORT

Work Order # 86-08-078

Received: 08/20/86

Results By Test

Sample Id	Test: HC IR mg/L	Test: ONG IR mg/L
01	<1	2*
02	<1	2*
860229		
860230		

Page 1
Received: 08/22/86
RAS - Austin
08/28/86 12:54:07
REPORT
Work Order # 86-08-092

REPORT Radian
TO B14
Austin
ATTEN Larry French
CLIENT PLANT4
COMPANY Plant 4, USAF
FACILITY General Dynamics
SAMPLES 9

PREPARED Radian Analytical Services
BY 8501 Mo-pac B1
PO Box 9948
Austin, TX 78751
CERTIFIED BY *Carl S. Smith*
ATTEN
PHONE 512-454-4797
CONTACT CONOVER

2nd column confirmation performed on EPA601: -09
**Poor integration

WORK ID Volatiles
TAKEN WJ
TRANS WF
TYPE
P O # 212-027-27-40
INVOICE under separate cover

Footnotes and Comments
* Indicates a value less than 5 times the detection limit.
Potential error for such low values ranges between 50 and 100%.
@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

5 SAMPLE IDENTIFICATION

01	860246
02	860247
03	860248
04	860249
05	860251
06	860252
07	860253
08	860254
09	860255

TEST CODES and NAMES used on this report

EPA601	EPA method 601
EPA602	EPA method 602

Page 2
Received: 08/22/86
RAS - Austin
Results by Sample

REPORT

Work Order # 86-08-092

SAMPLE ID 860246

FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 08/20/86

Category

ANALYST _____ CL
INSTRMT _____ G

FILE # _____ UNITS _____ ug/L

VERIFIED _____ CL

INJECTD 08/25/86

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.080
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.18
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	ND	0.25
75-69-4	Trichlorofluoromethane	ND	N/A
75-35-4	1,1-Dichloroethene	ND	0.13
75-34-3	1,1-Dichloroethane	ND	0.070
156-60-5	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	3.04	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.030
56-23-5	Carbon tetrachloride	ND	0.12
75-27-4	Bromodichloromethane	4.04	0.10

Page 3
 Received: 08/22/86
 RAS - Austin
 Results by Sample
 REPORT
 Work Order # 86-08-092
 Continued From Above

SAMPLE ID 860246
 FRACTION 01A
 TEST CODE EPA601
 NAME EPA method 601
 Date & Time Collected 08/20/86
 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	4.36	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	1.67	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24

SURROGATES

74-97-5	Bromochloromethane	105 % Recovery
3017-95-6	2-Bromo-1-chloropropane	% Recovery
110-56-5	1-4-Dichlorobutane	% Recovery

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Received: 08/22/86

RAS - Austin
Results by Sample

Work Order # 86-08-092
Continued From Above

SAMPLE ID 860246

FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 08/20/86

Category

460-00-4 1-Bromo-4-fluorobenzene 84 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

Page 5
 Received: 08/22/86
 RAS - Austin
 Results by Sample
 REPORT
 Work Order # 86-08-092

SAMPLE ID 860246
 FRACTION O1C
 Date & Time Collected 08/20/86
 TEST CODE EPA602
 NAME EPA method 602
 Category

ANALYST	INSTRMT	GC	FILE #	INJECTED	08/22/86	VERIFIED	CL	UNITS	ug/L
		D							
CAS#	COMPOUND	RESULT	DET LIMIT						
71-43-2	Benzene	ND	0.2						
108-88-3	Toluene	ND	0.2						
100-41-4	Ethylbenzene	ND	0.2						
108-90-7	Chlorobenzene	ND	0.2						
106-46-7	1,4-Dichlorobenzene	ND	0.3						
541-73-1	1,3-Dichlorobenzene	ND	0.4						
95-50-1	1,2-Dichlorobenzene	ND	0.4						

SURROGATES
 98-08-8 a,a,a-Trifluorotoluene 104% recovery

NOTES AND DEFINITIONS FOR THIS REPORT
 DET LIMIT = DETECTION LIMIT
 ND = not detected at detection limit
 NA = not analyzed
 * = less than 5 times the detection limit
 N/A = not available

Page 6

RAS - Austin

REPORT

Work Order # 86-08-092

Received: 08/22/86

Results by Sample

SAMPLE ID 860247

FRACTION 02A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 08/20/86

Category

ANALYST	RP	FILE #	VERIFIED	CL
INSTRMT	G		UNITS	ug/L
CAS#	COMPOUND	RESULT	DET LIMIT	
74-87-3	Chloromethane	ND	0.080	
74-83-9	Bromomethane	ND	1.2	
75-01-4	Vinyl chloride	ND	0.18	
75-00-3	Chloroethane	ND	0.52	
75-09-2	Methylene chloride	ND	0.25	
75-69-4	Trichlorofluoromethane	ND	N/A	
75-35-4	1,1-Dichloroethene	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.070	
156-60-5	trans-1,2-Dichloroethene	ND	0.10	
67-66-3	Chloroform	4.26	0.050	
107-06-2	1,2-Dichloroethane	ND	0.030	
71-55-6	1,1,1-Trichloroethane	ND	0.030	
55-23-5	Carbon tetrachloride	ND	0.12	
75-27-4	Bromodichloromethane	4.77	0.10	

SAMPLE ID 860247 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 08/20/86 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-5	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	0.13	0.12
124-48-1	Dibromochloromethane	4.77	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	1.96	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-97-5	Bromochloromethane	113	% Recovery
3017-95-5	2-Bromo-1-chloropropane		% Recovery
110-55-5	1-4-Dichlorobutane		% Recovery

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Received: 08/22/86
RAS - Austin
Results by Sample
REPORT
Work Order # 86-08-092
Continued From Above

SAMPLE ID 860247
FRACTION 02A
TEST CODE EPA601
NAME EPA method 601
Date & Time Collected 08/20/86
Category

460-00-4 1-Bromo-4-fluorobenzene 93 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N/A= not available

Page 9
 Received: 08/22/86
 RAS - Austin
 Results by Sample
 REPORT
 Work Order # 86-08-092

SAMPLE ID 860247
 FRACTION 02C
 TEST CODE EPA602
 NAME EPA method 602
 Date & Time Collected 08/20/86
 Category

ANALYST _____ CL
 INSTRMT _____ D
 INJECTED 08/25/86
 FILE # _____
 UNITS _____ ug/L
 VERIFIED _____ CL

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	ND	0.2
100-41-4	Ethylbenzene	ND	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES
 98-08-8 a,a,a-Trifluorotoluene 99% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
 DET LIMIT = DETECTION LIMIT
 ND = not detected at detection limit
 NA = not analyzed
 * = less than 5 times the detection limit
 N/A = not available

Page 10
 Received: 08/22/86
 RAS - Austin
 Results by Sample
 REPORT
 Work Order # 86-08-092
 SAMPLE ID 860248
 FRACTION Q3A
 TEST CODE EPA601
 NAME EPA method 601
 Date & Time Collected 08/20/86
 Category

ANALYST INSIRMT	RP C	INJECTD 08/25/86	FILE #	VERIFIED	CL
CAS#	COMPOUND	RESULT	DET LIMIT	UNITS	ug/L
74-87-3	Chloromethane	ND	0.080		
74-83-9	Bromomethane	ND	1.2		
75-01-4	Vinyl chloride	ND	0.18		
75-00-3	Chloroethane	ND	0.52		
75-09-2	Methylene chloride	ND	0.25		
75-69-4	Trichlorofluoromethane	ND	N/A		
75-35-4	1,1-Dichloroethene	ND	0.13		
75-34-3	1,1-Dichloroethane	ND	0.070		
156-60-5	trans-1,2-Dichloroethene	ND	0.10		
67-66-3	Chloroform	2.73	0.050		
107-06-2	1,2-Dichloroethane	ND	0.030		
71-55-6	1,1,1-Trichloroethane	ND	0.030		
55-23-5	Carbon tetrachloride	ND	0.12		
75-27-4	Bromodichloromethane	4.08	0.10		

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Received: 08/22/86
RAS - Austin
Results by Sample
REPORT
Work Order # 86-08-092
Continued From Above

SAMPLE ID 860248
FRACTION 03A
Date & Time Collected 08/20/86
TEST CODE EPA601
NAME EPA method 601
Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	4.25	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	1.79	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-97-5	Bromochloromethane	105	% Recovery
3017-95-6	2-Bromo-1-chloropropene		% Recovery
110-55-5	1-4-Dichlorobutane		% Recovery

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Results by Sample
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Work Order # 86-08-092
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SAMPLE ID 860248
FRACTION 03A
Date & Time Collected 08/20/86
TEST CODE EPA601
NAME EPA method 601
Category

460-00-4 1-Bromo-4-fluorobenzene 91 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

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REPORT

Work Order # 86-08-092

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Results by Sample

SAMPLE ID 860248

FRACTION 03C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 08/20/86 Category

VERIFIED CL

ANALYST INSTRMT CL D INJECTED 08/25/86 FILE # UNITS ug/L

CAS# COMPOUND RESULT DET LIMIT

71-43-2 Benzene ND 0.2

108-88-3 Toluene ND 0.2

100-41-4 Ethylbenzene ND 0.2

108-90-7 Chlorobenzene ND 0.2

106-46-7 1,4-Dichlorobenzene ND 0.3

541-73-1 1,3-Dichlorobenzene ND 0.4

95-50-1 1,2-Dichlorobenzene ND 0.4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 101% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

NVA = not available

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Work Order # 86-08-092

SAMPLE ID 860249

 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
 Date & Time Collected 08/20/86 Category

 ANALYST _____ RP
 INSTRMT _____ G
 INJECTD 08/25/86
 FILE # _____
 VERIFIED _____ CL
 UNITS _____ ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.080
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.18
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	ND	0.25
75-69-4	Trichlorofluoromethane	ND	N/A
75-35-4	1,1-Dichloroethene	ND	0.13
75-34-3	1,1-Dichloroethane	ND	0.070
156-60-5	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	2.55	0.050
107-06-3	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-trichloroethane	ND	0.030
56-23-5	Carbon tetrachloride	ND	0.12
75-27-4	Bromodichloromethane	3.93	0.10

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SAMPLE ID 860249

FRACTION 04A TEST CODE EPA601
Date & Time Collected 08/20/86

NAME EPA method 601
Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	0.19	0.12
124-48-1	Dibromochloromethane	4.38	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	1.86	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-97-5	Bromochloromethane	117 % Recovery	
3017-95-6	2-Bromo-1-chloropropane	% Recovery	
110-56-5	1-4-Dichlorobutane	% Recovery	

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Continued From Above

SAMPLE ID 860249

FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 08/20/86 Category

460-00-4 1-Bromo-4-fluorobenzene 81 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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REPORT

Work Order # 86-08-092

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Results by Sample

SAMPLE ID 860249

FRACTION 04C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 08/20/86

Category

VERIFIED CL

ANALYST CLL
INSTRMT D

FILE #

INJECTED 08/25/86

UNITS

ug/L

COMPOUND RESULT DET LIMIT

CAS#

71-43-2

Benzene

ND

0.2

108-88-3

Toluene

ND

0.2

100-41-4

Ethylbenzene

ND

0.2

108-90-7

Chlorobenzene

ND

0.2

106-46-7

1,4-Dichlorobenzene

ND

0.3

541-73-1

1,3-Dichlorobenzene

ND

0.4

95-50-1

1,2-Dichlorobenzene

ND

0.4

SURROGATES

98-08-8

a,a,a-Trifluorotoluene

99% recovery

NOTES AND DEFINITIONS FOR THIS REPORT

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

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N/A = not available

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Results by Sample

Work Order # 86-08-092

SAMPLE ID 860251

FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 08/20/86 Category

ANALYST INSTRMT	RP G	INJECTD 08/25/86	FILE #	VERIFIED	CL
CAS#	COMPOUND	RESULT	DET LIMIT	UNITS	ug/L
74-87-3	Chloromethane	ND	0.080		
74-83-9	Bromomethane	ND	1.2		
75-01-4	Vinyl chloride	ND	0.18		
75-00-3	Chloroethane	ND	0.52		
75-09-2	Methylene chloride	ND	0.25		
75-69-4	Trichlorofluoromethane	ND	N/A		
75-35-4	1,1-Dichloroethene	ND	0.13		
75-34-9	1,1-Dichloroethane	ND	0.070		
156-60-5	trans-1,2-Dichloroethene	ND	0.10		
67-66-3	Chloroform	2.38	0.050		
107-06-2	1,2-Dichloroethane	ND	0.030		
71-55-6	1,1,1-Trichloroethane	ND	0.030		
56-23-5	Carbon tetrachloride	ND	0.12		
75-27-4	Bromodichloromethane	3.67	0.10		

SAMPLE ID 860251

FRACTION 05A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	0.29	0.12
124-48-1	Dibromochloromethane	4.61	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	1.75	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24

SURROGATES

74-97-5	Bromochloromethane	99 % Recovery
3017-95-6	2-Bromo-1-chloropropene	% Recovery
110-56-5	1-4-Dichlorobutane	% Recovery

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Results by Sample

Work Order # 86-08-092

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SAMPLE ID 860251

FRACTION 05A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

460-00-4

1-Bromo-4-fluorobenzene

91 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

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Work Order # 86-08-092

SAMPLE ID 860251
FRACTION 05C
TEST CODE EPA602
NAME EPA method 602
Date & Time Collected 08/20/86
Category

ANALYST _____ CL
INSTRMT _____ D
INJECTED 08/25/86
FILE # _____
UNITS _____ ug/L
VERIFIED _____ CL

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	ND	0.2
100-41-4	Ethylbenzene	ND	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES
98-08-8 a,a,a-Trifluorotoluene 114% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
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N/A = not available

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Results by Sample

Work Order # 86-08-092

SAMPLE ID 860252

FRACTION 06A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 08/20/86

Category

ANALYST _____ RP _____
INSTRMT _____ 9 _____
INJECTD 08/25/86
FILE # _____ VERIFIED _____ CL _____
UNITS _____ ug/L _____

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.080
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.18
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	ND	0.25
75-69-4	Trichlorofluoromethane	ND	N/A
75-35-4	1,1-Dichloroethene	ND	0.13
75-34-3	1,1-Dichloroethane	ND	0.070
156-66-5	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	2.15	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.030
56-23-5	Carbon tetrachloride	ND	0.12
75-27-4	Bromodichloromethane	3.47	0.10

SAMPLE ID 860252

FRACTION 06A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	0.23	0.12
124-48-1	Dibromochloromethane	4.19	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	1.81	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-45-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-97-5	Bromochloromethane	105	% Recovery
3017-95-6	2-Bromo-1-chloropropene		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

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SAMPLE ID 860252

FRACTION 06A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

460-00-4

1-Bromo-4-fluorobenzene

89 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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Results by Sample

SAMPLE ID 860252

FRACTION 06C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 08/20/86

Category

VERIFIED CL

ANALYST RP
INSTMT D

INJECTED 08/25/86

FILE #

UNITS ug/L

COMPOUND RESULT DET LIMIT

CAS#

Benzene ND 0.2

71-43-2

Toluene ND 0.2

108-88-3

Ethylbenzene ND 0.2

100-41-4

Chlorobenzene ND 0.2

108-90-7

1,4-Dichlorobenzene ND 0.3

106-46-7

1,3-Dichlorobenzene ND 0.4

541-73-1

1,2-Dichlorobenzene ND 0.4

95-50-1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 101% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

SAMPLE ID 860253

FRACTION 07A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

ANALYST	INSTRMT	RP	G	INJECTD	08/25/86	FILE #	VERIFIED	CL
CAS#	COMPOUND	RESULT	DET LIMIT	UNITS	ug/L			
74-87-3	Chloromethane	ND	0.080					
74-83-9	Bromomethane	ND	1.2					
75-01-4	Vinyl chloride	ND	0.18					
75-00-3	Chloroethane	ND	0.52					
75-09-2	Methylene chloride	ND	0.25					
75-69-4	Trichlorofluoromethane	ND	N/A					
75-35-4	1,1-Dichloroethene	ND	0.13					
75-34-3	1,1-Dichloroethane	ND	0.070					
156-60-5	trans-1,2-Dichloroethene	ND	0.10					
67-66-3	Chloroform	2.79	0.050					
107-06-2	1,2-Dichloroethane	ND	0.030					
71-55-6	1,1,1-Trichloroethane	ND	0.030					
56-23-5	Carbon tetrachloride	ND	0.12					
75-27-4	Bromodichloromethane	4.69	0.10					

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Results by Sample

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SAMPLE ID 860253

FRACTION 07A TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	0.25	0.12
124-48-1	Dibromochloromethane	5.58	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	2.00	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24

SURROGATES

74-97-5	Bromochloromethane	108 % Recovery
3017-95-6	2-Bromo-1-chloropropane	% Recovery
110-55-5	1-4-Dichlorobutane	% Recovery

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Results by Sample

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SAMPLE ID 860253

FRACTION 07A TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

460-00-4

1-Bromo-4-fluorobenzene

95 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

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Results by Sample

Work Order # 86-08-092

SAMPLE ID 860253

FRACTION 07C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 08/20/86 Category

ANALYST _____ RP _____
INSTRMT _____ D _____
INJECTED 08/25/86
FILE # _____ UNITS _____ ug/L
VERIFIED _____ CL _____

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	ND	0.2
100-41-4	Ethylbenzene	ND	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES
98-08-B a,a,a-Trifluorotoluene 111% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N/A = not available

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Results by Sample

Work Order # 86-08-092

SAMPLE ID 860254

FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 08/20/86 Category

ANALYST _____ CL
INSTRMT _____ G
INJECTD 08/26/86
FILE # _____ VERIFIED _____ CL
UNITS _____ ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.080
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.18
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	ND	0.25
75-69-4	Trichlorofluoromethane	ND	N/A
75-35-4	1,1-Dichloroethene	ND	0.13
75-34-3	1,1-Dichloroethane	ND	0.070
156-60-5	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	2.92	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.030
56-23-5	Carbon tetrachloride	ND	0.12
75-27-4	Bromodichloromethane	4.76	0.10

SAMPLE ID 860254

FRACTION 08A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	5.19	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	1.89	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24

SURROGATES

74-97-5	Bromochloromethane	64**	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

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SAMPLE ID 860254

FRACTION 08A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

460-00-4

1-Bromo-4-fluorobenzene

108 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

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REPORT

Work Order # 86-08-092

SAMPLE ID 860254

FRACTION OBC

TEST CODE EPA602

NAME EPA method 602

Date & Time Collected 08/20/86

Category

ANALYST _____ INSTRMT _____ RP _____
D _____
INJECTED 08/25/86
FILE # _____
UNITS ug/L
VERIFIED _____ CL _____

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	ND	0.2
100-41-4	Ethylbenzene	ND	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 109% recovery

NOTES AND DEFINITIONS FOR THIS REPORT..

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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Results by Sample

Work Order # 86-08-092

SAMPLE ID 860255

FRACTION 09A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

ANALYST _____ CL
INSTMT _____ G

INJECTD 08/26/86

FILE # _____ VERIFIED _____ CL
UNITS _____ ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.080
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.18
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	43.3	0.25
75-69-4	Trichlorofluoromethane	2.26	N/A
75-35-4	1,1-Dichloroethene	ND	0.13
75-34-3	1,1-Dichloroethane	ND	0.070
156-60-5	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	2.57	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.030
56-23-5	Carbon tetrachloride	ND	0.12
75-27-4	Bromodichloromethane	3.68	0.10

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RAS - Austin

REPORT

Results by Sample

Work Order # 86-08-092
Continued From Above

SAMPLE ID 860255

FRACTION 09A TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.040
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.12
124-48-1	Dibromochloromethane	4.45	0.090
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.13
75-25-2	Bromoform	1.78	0.20
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.32
95-50-1	1,2-Dichlorobenzene	ND	0.15
106-46-7	1,4-Dichlorobenzene	ND	0.24
SURROGATES			
74-97-5	Bromochloromethane	112	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

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REPORT
Results by Sample

Work Order # 86-08-092
Continued From Above

SAMPLE ID 860255

FRACTION 09A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 08/20/86

Category

460-00-4

1-Bromo-4-fluorobenzene

110 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

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REPORT

Work Order # 86-08-092

Results by Sample

SAMPLE ID 860255

FRACTION 09C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 08/20/86

Category

ANALYST _____ RP _____
INSTRMT _____ D _____
FILE # _____ UNITS _____ ug/L
VERIFIED _____ CL _____

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	1.53	0.2
100-41-4	Ethylbenzene	ND	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 111% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	SPR601	01D	SPR602
02B	SPR601	02D	SPR602
03B	SPR601	03D	SPR602
04B	SPR601	04D	SPR602
05B	SPR601	05D	SPR602
06B	SPR601	06D	SPR602
07B	SPR601	07D	SPR602
08B	SPR601	08D	SPR602
09B	SPR601	09D	SPR602

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Austin

REPORT

09/03/86 09:27:21

Work Order # 86-08-093

REPORT Radiant
TO B14
Austin

PREPARED Radiant Analytical Services
BY 8501 Mo-Pac B1
PO Box 9948
Austin, TX 78751

ATTEN Larry French

ATTEN

PHONE 512-454-4797

CONTACT CONOVER

CLIENT PLANT 4 SAMPLES 6
COMPANY Plant 4, US F
FACILITY General Dynamics

WORK ID Volatiles
TAKEN WJ
TRANS WF
TYPE
P.O. # 212-027-27-40
POLICE under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit.
Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the
specific matrix was not within acceptable limits indicating
an interferent present.

2nd column confirmation performed on EPA601: -02, -05.

CERTIFIED BY
Carl Smith

SAMPLE IDENTIFICATION

01 850257
02 850258
03 850259
04 850261
05 Field blank
06 Lab blank

TEST CODES and NAMES used on this report

EPA601 EPA method 601
EPA602 EPA method 602

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REPORT
Results by Sample

Work Order # 86-08-093

SAMPLE ID 860257

FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 08/21/86

Category

ANALYST _____ RP _____
INSTRMT _____ C _____
INJECTD 08/26/86
FILE # _____ VERIFIED _____ MCL _____
UNITS _____ ug/L _____

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.21
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	ND	0.25
75-69-4	Trichlorofluoromethane	1.87	0.36
75-35-4	1,1-Dichloroethene	ND	0.49
75-34-3	1,1-Dichloroethane	ND	0.080
150-60-9	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	ND	0.090
107-06-2	1,2-Dichloroethane	ND	0.090
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.13
75-27-4	Bromodichloromethane	ND	0.10

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Results by Sample

REPORT

Work Order # 86-08-093
Continued From Above

SAMPLE ID 860257

FRACTION Q1A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 08/21/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-9	1,2-Dichloropropane	ND	0.080
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane	ND	0.40
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.48
75-25-2	Bromoform	ND	0.27
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.37
95-50-1	1,2-Dichlorobenzene	ND	0.54
106-46-7	1,4-Dichlorobenzene	ND	0.36
SURROGATES			
74-97-9	Bromochloromethane	111	% Recovery
3017-95-6	2-Bromo-1-chloropropene		% Recovery
110-56-9	1-4-Dichlorobutane		% Recovery

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REPORT

Work Order # 86-08-093
Continued From Above

Results by Sample

SAMPLE ID 860257

FRACTION 01A TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/21/86

Category

460-00 4

1-Bromo-4-fluorobenzene

118 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

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SAMPLE ID 860257

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Results by Sample

REPORT

Work Order # 86-08-093

FRACTION 01C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 08/21/86

Category

ANALYST _____
INSTRUMENT _____

INJECTED 08/29/86

FILE #

VERIFIED _____ MCL

UNITS _____ ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	3.58	0.2
100-41-4	Ethylbenzene	ND	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

93-08-8 a,a,a-Trifluorotoluene 99% recovery

DEFINITIONS FOR THIS REPORT

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

NA = not available

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 Results by Sample
 REPORT
 Work Order # 86-08-093

SAMPLE ID 860258
 FRACTION 02A
 TEST CODE EPA601
 NAME EPA method 601
 Date & Time Collected 08/21/86
 Category

ANALYST _____ RP _____
 INSTRMT _____
 INJECTD 08/26/86
 FILE # _____
 VERIFIED _____ MCL _____
 UNITS _____ ug/L _____

CAS#

COMPOUND

RESULT

DET LIMIT

74-87-3

Chloromethane

ND

0.30

74-83-9

Bromomethane

ND

1.2

75-01-4

Vinyl chloride

ND

0.21

75-00-3

Chloroethane

ND

0.52

75-09-2

Methylene chloride

ND

0.25

75-69-4

Trichlorofluoromethane

1.54

0.36

75-35-4

1,1-Dichloroethene

ND

0.49

75-34-3

1,1-Dichloroethane

ND

0.080

156-60-8

trans-1,2-Dichloroethene

ND

0.10

67-69-3

Chloroform

ND

0.090

107-06-2

1,2-Dichloroethane

ND

0.090

71-55-6

1,1,1-Trichloroethane

ND

0.090

50-23-5

Carbon tetrachloride

ND

0.13

75-27-4

Bromodichloromethane

ND

0.10

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Results by Sample

Continued From Above

SAMPLE ID 860358

FRACTION 02A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/21/86

Category

CASH	COMPOUND	RESULT	DET LIMIT
78-82-5	1,2-Dichloropropane	ND	0.080
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	7.42	0.20
124-48-1	Dibromochloromethane	ND	0.40
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.48
75-25-2	Bromoform	ND	0.27
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	0.10	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.37
95-50-1	1,2-Dichlorobenzene	ND	0.54
106-46-7	1,4-Dichlorobenzene	ND	0.36

SURROGATES

74-97-5	Bromochloromethane	112 % Recovery
3017-95-6	2-Bromo-1-chloropropane	% Recovery
110-55-5	1-4-Dichlorobutane	% Recovery

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Results by Sample

Work Order # 86-08-093

Continued From Above

SAMPLE ID 860258

FRACTION 02A TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/21/86

Category

460-00-4 1-Bromo-4-fluorobenzene 122 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

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REPORT

Work Order # 86-08-093

Results by Sample

SAMPLE ID 860258

FRACTION 02C

TEST CODE EPA602

NAME EPA method 602

Date & Time Collected 08/21/86

Category

ANALYST _____ RP _____
INSTRMT _____ D _____

FILE # _____ UNITS _____ ug/L

VERIFIED _____ MCL

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	4.39	0.2
100-41-4	Ethylbenzene	ND	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 97% recovery

DEFINITIONS AND LIMITATIONS FOR THIS REPORT:

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

NA = not available

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REPORT

Work Order # 86-08-093

Results by Sample

SAMPLE ID 860259

FRACTION 03A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 08/21/86

Category

ANALYST _____ RP
INSTRMT _____

FILE # _____
VERIFIED _____ MCL
UNITS _____ ug/L

INJECTD 08/26/86

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.21
75-00-3	Chloroethane	ND	0.52
75-04-0	Methylene chloride	ND	0.25
75-69-4	Trichlorofluoromethane	1.32	0.36
75-35-4	1,1-Dichloroethene	ND	0.49
75-34-3	1,1-Dichloroethane	ND	0.080
75-35-4	trans-1,2-Dichloroethene	ND	0.10
67-55-1	Chloroform	ND	0.090
75-35-4	1,2-Dichloroethane	ND	0.090
75-35-4	1,1,1-Trichloroethane	ND	0.090
75-35-4	Carbon tetrachloride	ND	0.13
75-35-4	Bromodichloromethane	ND	0.10

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 Results by Sample

Work Order # 86-08-093
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Sample ID 85-079 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
 Date & Time Collected 08/21/86 Category _____

COMPOUND	RESULT	DET LIMIT
1,2-Dichloropropane	ND	0.080
trans-1,3-Dichloropropene	ND	0.34
Trichloroethene	ND	0.20
Dibromochloromethane	ND	0.40
1,1,2-Trichloroethane	ND	0.020
cis-1,3-Dichloropropene	ND	0.20
2-Chloroethylvinyl ether	ND	0.48
Bromoform	ND	0.27
1,1,2,2-Tetrachloroethane	ND	0.030
Tetrachloroethene	ND	0.030
Chlorobenzene	ND	0.25
1,3-Dichlorobenzene	ND	0.37
1,2-Dichlorobenzene	ND	0.54
1,4-Dichlorobenzene	ND	0.36

SURROGATES

Bromochloromethane	109	% Recovery
2-Bromochloropropane		% Recovery
1,4-Dichlorobutane		% Recovery

**RAMDAMAN
CORPORATION**

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Sample ID 5549

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REPORT

Results by Sample

Work Order # 86-08-093
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FRACTION 03A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 08/21/86

Category

420 0 4 1-Bromo 4-fluorobenzene 110 % Recovery

UNITS AND DEFINITIONS FOR THIS REPORT

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

N/A = not analyzed

* = less than 5 times the detection limit

N/A = not available

NO-A190 444

INSTALLATION RESTORATION PROGRAM PHASE 2
CONFIRMATION/QUANTIFICATION STAG. (U) RADIAN CORP
AUSTIN TX DEC 87 F33615-03-D-4001

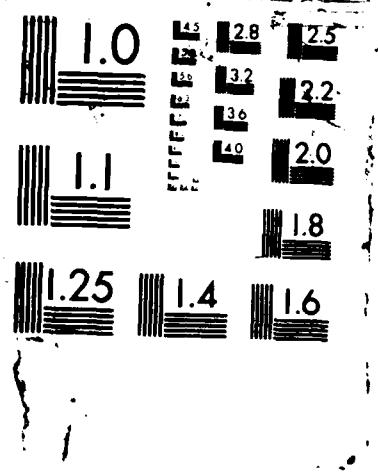
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UNCLASSIFIED

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NL





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REPORT

Results by Sample

Work Order # 86-08-093

SAMPLE ID 860259

FRACTION 03C

TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 08/21/86

Category

ANALYST _____
INSTRMT _____

RP
D

INJECTED 08/29/86

FILE #

VERIFIED _____

MCL

UNITS _____
ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	1.40	0.2
100-41-4	Ethylbenzene	ND	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 95% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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Results by Sample

Work Order # 86-08-093

SAMPLE ID 860261

FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 08/21/86 Category

ANALYST INSTMT	CL G	INJECTD 08/27/86	FILE #	VERIFIED	MCL	
					UNITS	ug/L
CAS#		COMPOUND	RESULT	DET LIMIT		
74-87-3		Chloromethane	ND	0.30		
74-83-9		Bromomethane	ND	1.2		
75-01-4		Vinyl chloride	ND	0.21		
75-00-3		Chloroethane	ND	0.52		
75-09-2		Methylene chloride	ND	0.25		
75-69-4		Trichlorofluoromethane	1.15	0.36		
75-35-4		1,1-Dichloroethene	ND	0.49		
75-34-0		1,1-Dichloroethane	ND	0.080		
155-60-9		trans-1,2-Dichloroethene	0.58	0.10		
67-66-3		Chloroform	ND	0.090		
107-06-2		1,2-Dichloroethane	ND	0.090		
71-55-6		1,1,1-Trichloroethane	ND	0.090		
56-23-5		Carbon tetrachloride	ND	0.13		
75-27-4		Bromodichloromethane	ND	0.10		

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Results by Sample

Work Order # 86-08-093
Continued From Above

SAMPLE ID 860261

FRACTION 04A TEST CODE EPA601
Date & Time Collected 08/21/86

NAME EPA method 601
Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.080
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	0.30	0.20
124-48-1	Dibromochloromethane	ND	0.40
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.48
75-25-2	Bromoform	ND	0.27
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.37
95-50-1	1,2-Dichlorobenzene	ND	0.54
106-46-7	1,4-Dichlorobenzene	ND	0.36

SURROGATES

74-97-5	Bromochloromethane	92	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

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Results by Sample

SAMPLE ID 860351

FRACTION 04A TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/21/86

Category

460-00-4 1-Bromo-4-fluorobenzene 79 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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Results by Sample

Work Order # 86-08-093

SAMPLE ID 860961

FRACTION 04C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 08/21/86 Category

ANALYST _____ RP _____
INSTRMT _____ D _____
FILE # _____ INJECTED 08/29/86 UNITS _____ ug/L
VERIFIED _____ MCL

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	1.18	0.2
100-41-4	Ethylbenzene	ND	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES
98-08-8 a,a,a-Trifluorotoluene 97% recovery

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
x = less than 5 times the detection limit
N/A = not available

SAMPLE ID field blank

FRACTION 05A

TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

ANALYST INSRMT	CAS#	COMPOUND	INJECTD 08/26/86	FILE #	VERIFIED	
					UNITS	MCL ug/L
	74-87-3	Chloromethane		ND		0.30
	74-83-9	Bromomethane		ND		1.2
	75-01-4	Vinyl chloride		ND		0.21
	75-00-3	Chloroethane		ND		0.52
	75-09-2	Methylene chloride		20.6		0.25
	75-69-4	Trichlorofluoromethane		3.07		0.36
	75-35-4	1,1-Dichloroethene		ND		0.49
	75-34-3	1,1-Dichloroethane		ND		0.080
	156-60-5	trans-1,2-Dichloroethene		ND		0.10
	67-66-3	Chloroform		ND		0.090
	107-06-2	1,2-Dichloroethane		ND		0.090
	71-55-6	1,1,1-Trichloroethane		ND		0.090
	56-23-9	Carbon tetrachloride		ND		0.13
	75-27-4	Bromodichloromethane		ND		0.10

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Work Order # 86-08-093

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Results by Sample

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SAMPLE ID field blank

FRACTION 05A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 08/20/86

Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.080
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-6	Trichloroethene	ND	0.20
124-43-1	Dibromochloromethane	ND	0.40
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-3	2-Chloroethylvinyl ether	ND	0.48
75-25-2	Bromoform	ND	0.27
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-18-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-73-1	1,3-Dichlorobenzene	ND	0.37
95-50-1	1,2-Dichlorobenzene	ND	0.54
105-46-7	1,4-Dichlorobenzene	ND	0.36

SURROGATES

74-97-8	Bromochloromethane	109	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

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Received: 08/22/86

RAS - Austin

REPORT
Results by Sample

Work Order # 86-08-093
Continued From Above

SAMPLE ID field blank

FRACTION 05A TEST CODE EPA601

NAME EPA method 601

Date & Time Collected 08/20/86

Category

460-00-4

1-Bromo-4-fluorobenzene

96 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A= not available

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Received: 08/22/86

RAS - Austin
Results by Sample

Work Order # 86-08-093

SAMPLE ID field blank

FRACTION 05B

TEST CODE EPA602

NAME EPA method 602

Date & Time Collected 08/20/86

Category

ANALYST _____ RP _____
INSTRMT _____ D _____
INJECTED 08/29/86
FILE # _____
VERIFIED _____ MCL _____
UNITS _____ ug/L _____

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	0.22	0.2
100-41-4	Ethylbenzene	ND	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES
98-08-8 a,a,a-Trifluorotoluene 96% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
x = less than 5 times the detection limit
N/A = not available

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Received: 08/22/86

RAS - Austin
Results by Sample

Work Order # 86-08-093

SAMPLE ID trip blank

FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

ANALYST _____ RP
INSTRMT _____ C

INJECTD 08/27/86

FILE # _____
VERIFIED _____ MCL
UNITS _____ ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.21
75-00-3	Chloroethane	ND	0.52
75-09-2	Methylene chloride	0.77	0.25
75-69-4	Trichlorofluoromethane	3.57	0.36
75-35-4	1,1-Dichloroethene	ND	0.49
75-34-3	1,1-Dichloroethane	ND	0.080
150-60-5	trans-1,2-Dichloroethene	ND	0.10
67-66-3	Chloroform	ND	0.090
107-06-2	1,2-Dichloroethane	ND	0.090
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.13
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID trip blank

FRACTION 06A

TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified

Category

CASE#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane	ND	0.080
10061-02-6	trans-1,3-Dichloropropene	ND	0.34
79-01-5	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane	ND	0.40
79-00-5	1,1,2-Trichloroethane	ND	0.020
10061-01-5	cis-1,3-Dichloropropene	ND	0.20
110-75-8	2-Chloroethylvinyl ether	ND	0.48
75-25-2	Bromoform	ND	0.27
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.030
127-16-4	Tetrachloroethene	ND	0.030
108-90-7	Chlorobenzene	ND	0.25
541-72-1	1,3-Dichlorobenzene	ND	0.37
95-50-1	1,2-Dichlorobenzene	ND	0.54
105-45-7	1,4-Dichlorobenzene	ND	0.36
SURROGATES			
74-87-5	Bromochloromethane	114 % Recovery	
301-74-2	2-Bromo-1-chloropropane	% Recovery	
110-52-5	1-4-Dichlorobutane	% Recovery	

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REPORT

Work Order # 86-08-093

Results by Sample

Continued From Above

Sample ID trip blank

FRACTION 06A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified

Category

450-00-4

1-Bromo-4-fluorobenzene

97 % Recovery

UNITS AND DEFINITIONS FOR THIS REPORT:

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

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Received: 08/22/86
RAS - Austin
Results by Sample
REPORT
Work Order # 86-08-093

SAMPLE ID trip blank
FRACTION 06B
TEST CODE EPA602
NAME EPA method 602
Date & Time Collected not specified
Category

ANALYST _____
INSTRMT _____
RP _____
D _____
INJECTED 08/29/86
FILE # _____
UNITS _____
ug/L _____
VERIFIED _____
MCL _____

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	3.05	0.2
100-41-4	Ethylbenzene	ND	0.2
108-90-7	Chlorobenzene	ND	0.2
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES
98-08-8 a,a,a-Trifluorotoluene 95% recovery

DEFINITIONS AND LIMITS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N/A = not available

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Received: 08/22/86

RAS - Austin

REPORT

NonReported Work

Work Order # 86-08-093

SPACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	:	SPR601	01D	:	SPR602
02B	:	SPR601	02D	:	SPR602
03B	:	SPR601	03D	:	SPR602
04B	:	SPR601	04D	:	SPR602

Page 1
 Received 08/23/86
 RAS - Austin
 09/03/86 09:49:04
 REPORT
 Work Order # 86-08-094

REPORT Radiant
 TO B1.4
 Austin
 ATTN Larry French
 CLIENT PLANT 4
 COMPANY Plant 4, USAF
 FACILITY General Dynamics
 SAMPLES 20

PREPARED Radian Analytical Services
 BY 8501 Mo-pac Bl.
 PO Box 9948
 Austin, TX 78751
 ATTN
 PHONE 512-454-4797

Joseph M. Luedke
 CERTIFIED BY

CONTACT CONOVER

Footnotes and Comments

- * Indicates a value less than 5 times the detection limit.
 Potential error for such low values ranges between 50 and 100%.
- @ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

WORK ID Q&G.HC
 TAKEN WJ
 TRANS WF
 TYPE
 P U # 212-027-27-40
 NOTICE under separate cover

4 569

SAMPLE IDENTIFICATION

01	860237
02	860238
03	860239
04	860240
05	860241
06	860242
07	860243
08	860244
09	860245
10	860246
11	860247
12	860248
13	860249
14	860250
15	860251
16	860252
17	860253
18	860254
19	860255
20	860256

TEST CODES and NAMES used on this report

HC IR	Hydrocarbons
ONG IR	Oil and grease, infrared

**RAMDIAN
CORPORATION**

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Received: 08/22/86

RAS - Austin

09/03/86 09:49:04

Work Order # 86-08-094

SAMPLE IDENTIFICATION

PA 860256

Received: 08/22/86

RAS - Austin

REPORT

Work Order # 86-08-094

Results By Test

Sample Id	SAMPLE	Test: HC IR		Test: ONG IR	
		mg/L		mg/L	
860237	01	<1		<1	
860238	02	<1		<1	
860239	03	<1		<1	
860240	04	<1		<1	
860241	05	<1		<1	
860242	06	<1		<1	
860243	07	<1		<1	
860244	08	<1		<1	
860245	09	<1		<1	
860246	10	<1		<1	
860247	11	<1		<1	
860248	12	<1		<1	
860249	13	<1		<1	
860250	14	<1		<1	

- D R A F T -

860251	15	<1	<1
860252	16	<1	<1
860253	17	<1	<1
860254	18	<1	<1
860255	19	<1	1*
860256	20	<1	<1

Received: 08/22/86

RAS -

Austin

REPORT

Work Order # 86-08-095

09/10/86 13:48:06

REPORT Radion
TO BL 4
Austin
ATTEN Larry French
CLIENT PLANT 4
COMPANY Plant 4, USAF
FACILITY General Dynamics
SAMPLES 3

PREPARED Radion Analytical Services
BY 8501 Mo-rac Bl.
PO Box 9948
Austin, TX 78751
ATTEN
PHONE 512-454-4797

Ray C. Hill
CERTIFIED BY
CONTACT CONOVER

WORK ID Q&Q, HC, metals
TAKEN WJ
TRANS WF
TYPE
P.O. # 212-027-27-40
INVOICE under separate cover

Footnotes and Comments

- * Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.
- @ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 860237
02 860238
03 860239
04 860260
05 860261

TEST CODES and NAMES used on this report

AG E	Silver, ICPE
AS G	Arsenic, graphite AA
BA E	Barium, ICPE
CD E	Cadmium, ICPE
CR E	Chromium, ICPE
DG3020	Digestion, method 3020
DG6010	Digestion, method 6010
HC IR	Hydrocarbons
HG C	Mercury, cold vapor
ONG IR	Oil and grease, infrared
PB G	Lead, graphite AA
SE G	Selenium, graphite AA

Received: 08/22/86

Results By Test

TEST CODE	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
AG E	<.002	<.002	<.002	<.002	<.002
ug/ml					
AS G	0.017	0.26	0.086	0.004*	0.004*
ug/ml					
BA E	0.036	0.16	0.12	0.13	0.081
ug/ml					
CD E	0.002*	0.006*	<.002	0.003*	<.002
ug/ml					
CR E	0.006*	0.009*	0.019*	0.007*	0.020*
ug/ml					
DG3020	08/26/86	08/26/86	08/26/86	08/26/86	08/26/86
date complete					
DG6010	08/26/86	08/26/86	08/26/86	08/26/86	08/26/86
date complete					
HC IR	<1	<1	<1	<1	<1
mg/L					
ONG IR	<1	<1	<1	<1	<1
mg/L					
PB G	0.007	0.050	0.022	0.006	0.009
ug/ml					
SE G	<.002	0.005*	<.002	<.002	<.002
ug/ml					

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Received: 08/22/86

RAS - Austin

REPORT

Results by Sample

Work Order # 86-08-095

SAMPLE ID 860257

FRACTION 01A

TEST CODE HG C

NAME Mercury, cold vapor

Date & Time Collected 08/21/86

Category

ANALYST DES
INSTRMT 403

ANALYZED 08/27/86

ANALYTE RESULT DET LIMIT

Mercury 0.0004* 0.00020

VERIFIED GCL

UNITS ug/ml

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

4 575

SAMPLE ID 860258

FRACTION 02A

TEST CODE HG C

NAME Mercury, cold vapor

Date & Time Collected 08/21/86

Category

ANALYST DES
INSTRMT 403

ANALYZED 08/27/86

ANALYTE RESULT DET LIMIT

Mercury 0.0002* 0.00020

VERIFIED GCL

UNITS ug/ml

Page 4

Received: 08/22/86

RAS - Austin

REPORT

Results by Sample

Work Order # 86-08-095

Continued From Above

SAMPLE ID 860258

FRACTION 02A

TEST CODE HG C

NAME Mercury, cold vapor

Date & Time Collected 08/21/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

SAMPLE ID 860259

FRACTION 03A

TEST CODE HG C

NAME Mercury, cold vapor

Date & Time Collected 08/21/86

Category

4 576

VERIFIED QCL

ANALYST DES
INSTRMT 403

ANALYZED 08/27/86

UNITS ug/ml

ANALYTE RESULT DET LIMIT

Mercury ND 0.00020

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

Received: 08/22/86

RAS - Austin

REPORT

Work Order # 86-08-095

Results by Sample

SAMPLE ID 860260

FRACTION 04A

TEST CODE HG C

NAME Mercury, cold vapor

Date & Time Collected 08/21/86

Category _____

ANALYST _____
INSTRMT DES
403

ANALYZED 08/27/86

ANALYTE RESULT DET LIMIT

Mercury _____ ND _____ 0.00020

VERIFIED _____ GCL

UNITS _____ ug/ml

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N/A = not available

SAMPLE ID 860261

FRACTION 05A

TEST CODE HG C

NAME Mercury, cold vapor

Date & Time Collected 08/21/86

Category _____

ANALYST _____
INSTRMT DES
403

ANALYZED 08/27/86

ANALYTE RESULT DET LIMIT

Mercury _____ ND _____ 0.00020

VERIFIED _____ GCL

UNITS _____ ug/ml

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Received: 08/22/86

RAS - Austin

REPORT

Results by Sample

Work Order # 86-08-095

Continued From Above

SAMPLE ID 860261

FRACTION 05A

TEST CODE HG C

NAME Mercury, cold vapor

Date & Time Collected 08/21/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

* = less than 5 times the detection limit

N/A = not available

Page 1
 Received: 08/22/86
 RAS - Austin
 REPORT
 12/19/86 15:53:59
 Work Order # 86-08-096

REPORT Radian
 TO B1.4
 Austin
 ATTN Larry French
 CLIENT PLANT 4
 COMPANY Plant 4, USAF
 FACILITY General Dynamics

PREPARED Radian Analytical Services
 BY B501 Mo-pac B1.
 PO Box 9948
 Austin, TX 78751
 ATTN
 PHONE 512-454-4797

CERTIFIED BY
 CONTACT CONOVER

SAMPLES 4

-02 spiked a=21.0(5.2)pCi/L b=131.1(7.7) -02 +spike calc.
 a=36.6(4.9) b=146.6(8.7) -02 had replicate counts. -03
 had replicate sample aliquots. Mixed std. act. a=2.4(0.3)
 b=9.6(0.5) Mixed std calc. a=2.3(0.4) b=8.3(0.6)

WORK ID RAM
 TAKEN WJ
 TRANS WJ
 TYPE
 P.O. # 212-027-27-42
 INV. # 8578

Duplicate of report of 09/10/86.
 Footnotes and Comments

* Indicates a value less than 5 times the detection limit.
 Potential error for such low values ranges between 50 and 100%.
 @ Indicates that spike recovery for this analysis on the
 specific matrix was not within acceptable limits indicating
 an interferent present.

SAMPLE IDENTIFICATION

01 860258
 02 860259
 03 860260
 04 860261

TEST CODES and NAMES used on this report

ALPHA Gross alpha radiation
 BETA Gross beta radiation
 GAMMA Gamma radiation

Received: 08/22/86

RAS - Austin

REPORT

Work Order # 86-08-096

Results By Test

TEST CODE	Sample 01	Sample 02	Sample 03	Sample 04
default units	(entered units)	(entered units)	(entered units)	(entered units)
ALPHA	5.1(4.4)	3.6(4.0)	3.3(2.4)	<2.1
pCi/	pCi/L	pCi/L	pCi/L	pCi/L
BETA	4.7(3.8)	<4.2	7.2(2.2)	<5.7
pCi/	pCi/L	pCi/L	pCi/L	pCi/L
GAMMA	<10.72	<12.6	<9.4	<12.5
pCi/	pCi/kg	pCi/kg	pCi/kg	pCi/kg

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Received: 08/22/86

RAS - Austin
NonReported Work

REPORT

Work Order # 86-08-096

REACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

02B : SPARE
03B : SPARE
04B : SPARE

END
DATE
FILMED

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DTIC